ANNUAL REPORT

MTU AERO ENGINES AG

24

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Key facts and figures with year-on-year comparison

Selected consolidated financial information and key figures at a glance

in € million (unless stated otherwise)	2024	2023	Change against previous year in %
Revenue and earnings			
Revenue	7,411	5,363	38.2
thereof: commercial engine business [1]	1,842	711	>100
thereof: military engine business [1]	612	538	13.8
thereof: commercial maintenance business [1]	5,066	4,225	19.9
Gross profit	1,233	118	>100
Earnings before interest and taxes (EBIT)	955	–161	>100
Net income	642	–97	>100
Adjusted earnings			
Adjusted revenue	7,488	6,326	18.4
Adjusted gross profit	1,329	1,115	19.2
Adjusted earnings before interest and taxes (adjusted EBIT)	1,050	818	28.4
Adjusted EBIT margin (in %)	14.0	12.9	
Adjusted net income	764	594	28.8
Balance sheet			
Total assets	12,484	10,204	22.4
Equity	3,438	2,933	17.2
Equity ratio (in %)	27.5	28.7	
Net financial debt	1,061	631	68.2
Cash flow			
Cash flow from operating activities	714	777	–8.2
Cash flow from investing activities	–603	–420	–43.5
Free cash flow (adjusted)	183	352	–48.0
Cash flow from financing activities	736	–294	>100
Number of employees at year end			
Commercial and military engine business	7,837	7,544	3.9
Commercial maintenance business	5,055	4,626	9.3
Total number of employees	12,892	12,170	5.9
Share indicators			
Earnings per share in €			
Basic earnings per share	11.77	–1.90	>100
Diluted earnings per share	11.53	–1.90	>100

[1] Before consolidation

To our shareholders

Letter to our shareholders

Dear shareholders,

8 – 1 – 25.

Revenue of €8 billion and an operating profit of €1 billion in 2025. That was the target we set ourselves.

I am delighted to say that we achieved our earnings target a year earlier than planned, posting adjusted EBIT of €1,050 million in 2024. We also fully achieved our other guidance figures across the board, generating revenue of €7.5 billion against a forecast of between €7.3 billion and €7.5 billion. As planned, adjusted net income grew in line with adjusted EBIT and reached €764 million. At €183 million, free cash flow in 2024 was in line with our guidance of the low triple-digit million euro range.

These strong financial results reflect the resilience of our crisis-resistant business model and our operational capability. We have once again shown that we can handle demanding situations – as 2024 was another challenging and intense year.

The greatest challenge was again the Geared Turbofan fleet management plan, which was triggered in 2023 by a manufacturing problem with a component produced by our program partner Pratt & Whitney. This affects us through our risk- and revenue-sharing agreement because our share of the earnings and the risks associated with the Geared Turbofan (GTF) is 18%. We will continue to feel the impact of the plan through 2025 and 2026, both operationally in the workshops and financially in free cash flow. However, we have now moved from what was a crisis plan to a carefully considered action plan drawn up jointly with our partners, and are working through it meticulously at MTU's maintenance sites and throughout the Geared Turbofan MRO network. MTU is leading the entire partner network in reducing throughput times and identifying potential savings. Thanks to our extensive expertise, we have been able to reduce turnaround time to well under 100 days when there is optimal parts availability. Though this is not yet the case across the board, we are clearly moving in the right direction. We are of course sharing our findings with the whole GTF maintenance network. Together with our partners, we are doing everything in our power to minimize the impact of the GTF fleet management plan on airlines, reduce costs and continue to strengthen confidence in the GTF.

And the market does have confidence in GTF technology, reflected in the many engine orders placed in 2024, with more than 220 at the Farnborough International Airshow alone. The orders placed in Farnborough will generate around U.S.$800 million for MTU, reaffirming that the cutting-edge engines in our portfolio are the right ones.

Demand among airlines is high as both passenger and cargo traffic are steadily increasing. Aviation is and will remain a growth market.

However, 2024's high demand was met with the second major challenge of the year: supply chain issues. These problems have led to aircraft manufacturers slowing down their ramp-up. Consequently, fewer new aircraft came onto the market. Naturally, this is holding back our new engine business, but the demand is there, the aircraft have been ordered, and growth will follow in time along with higher delivery figures. On the flip side, the lack of new aircraft is boosting aftermarket demand as older aircraft are being retired later than expected. This opens up opportunities for our maintenance, spare parts and leasing business.

To capitalize on these and position ourselves successfully for the future, we have rigorously aligned MTU with market needs over the past year through investments, appropriate strategic adjustments and intelligent innovations.

For example, a new production facility for disks was opened in Munich. Once completed, it will be fully automated, which means that MTU will have the world's most modern rotor production facility. Here too, demand is palpable and we plan to double the plant's capacity over the next ten years.

MTU is a steadfast partner in today's volatile environment. In March 2024 we delivered our 1000th PW1100G-JM, and consider ourselves well placed to increase deliveries further in the years ahead.

To put our digital transformation on a firm footing, we are building a new data center in Munich. We laid the foundation stone in April. Construction is progressing well, and we plan for the center to go live in the first quarter of 2025. Likewise, we are making good progress with the construction of our new, state-of-the-art development center. We are also focusing on future automation, forging ahead in collaboration with various partners including automation and measurement technology specialist 3D.aero, which we acquired at the end of 2024.

Where sustainable energy supply is concerned, we are setting standards at our Munich site: our own geothermal plant – with which we aim to cover 80% of our heating needs – will minimize our dependence on gas. This is a major step toward much lower CO_2 emissions at the site. We successfully carried out pumping tests in 2024 and are currently constructing the heat distribution center. Our geothermal plant is scheduled to go into operation in mid-2025.

We pushed on with expanding our maintenance capacities in 2024, setting up our second site in Zhuhai, China, which has just been put into operation. Meanwhile, MTU Maintenance Dallas moved into much larger premises. Its test cell can now also test CFM56 engines – an important addition to the site's portfolio. MTU Maintenance Berlin-Brandenburg completed its portfolio expansion to include the CFM56-7B, having received approval for engine testing. A new spare parts warehouse at MTU Maintenance Lease Services now ensures higher parts availability and faster delivery.

In the military business, we have major projects on the agenda with the next generation of European fighter aircraft and helicopters. We and our partners Safran and ITP are developing the engine architecture and the basic propulsion technologies for the engine that will power the next European fighter jet from 2040. In mid-2024 we set up the EURA joint venture with Safran Helicopter Engines for Europe's next generation of military helicopters. This is a big step on the road to the joint development of a new, all-European helicopter engine.

Our industry is also working toward zero-emission flying. MTU shares this vision and is actively helping to shape the future of aviation with an open approach to new technologies. This means using ultra-efficient gas turbines that run on sustainable, alternative fuels. It also involves revolutionary concepts like the hydrogen-powered Flying Fuel Cell, which reduces climate impact to near zero as fuel cells only emit water – no CO_2, no nitrogen oxides, and no particles. We have consistently forged ahead with these technological advances in 2024, for example by running successful tests of the liquid hydrogen fuel system and starting to build new test cells for the Flying Fuel Cell in Munich. The Flying Fuel Cell is also instrumental to the EU's HEROPS technology program (Hydrogen-Electric Zero Emission Propulsion System) launched in February 2024.

In another European research program – Clean Sky 2 – we improved and validated turbine and compressor technologies in 2024. These are set to be incorporated into the next generation of Geared Turbofan technologies, making the engines even more efficient, with lower fuel consumption and emissions.

Current-generation engines, such as the V2500 for the classic A320 family, can also contribute to greener aviation in the coming decades through the use of sustainable aviation fuels, known as SAFs. In 2024, MTU was the world's first maintenance organization to carry out a successful V2500 test with 100% SAF in Hanover.

To summarize: In 2024, we planned our capacities with foresight, kept a close eye on costs and continuously increased our efficiency. In keeping with our anniversary motto "passion for engines – 90 years and beyond," we are focused on making a definitive contribution to more climate-friendly aviation while also securing MTU's future.

This would not be possible without our amazing team. On behalf of the entire Executive Board, I would like to thank all our employees for their tireless commitment, flexibility, perseverance and motivation. I am proud of what we have achieved together over the course of this challenging year. I would also like to thank our partners, customers and suppliers for their trustful collaboration and constructive communication. In the engine industry in particular, teamwork in global partnerships is the cornerstone of success and the reason why we think and work internationally here at MTU. Every day at all our sites, we see for ourselves how positively the insights, knowledge and experience of different people enrich our working environment and the way we interact with each other. This diversity is a critical success factor as we work on our future together. We explicitly speak out against all forms of discrimination, exclusion and hatred.

All of this, combined with a pioneering, long-term mindset and outstanding financial performance, sets our course for a bright future. We have proven that we are not only crisis-proof, but that we have the right foundations for sustainable, profitable growth. This positive performance is a springboard for further momentum in 2025, and we anticipate ongoing organic growth across all business areas. In 2025, revenue is expected to rise fastest in the commercial series business. We also expect to see higher revenues in the spare parts business, commercial maintenance and the military business. I have no doubts whatsoever that we are on the right path and pursuing the right strategy.

The capital market recognizes this too. In 2024 we placed the largest corporate bond with the longest maturity in MTU's history, with a nominal value of €750 million and a term of seven years. We also placed a promissory note in 2024. In view of high demand, the issue volume was increased from €200 million to €300 million.

We are using these funds to keep MTU on course for further growth.

Our operational strengths and solid prospects are also reflected in our share price, which hit an all-time high of €327.60 in 2024 and exceeded this again at €349.90 at the end of January 2025. The share price has been consistently above the €300 mark since fall 2024. This is good news for you as our shareholders.

In addition to a robust share price, you benefit from MTU's success through the dividend. At the same time, we want to maintain the financial headroom for MTU to grow. So our dividend proposal is once again a balance between the financial impact of the Geared Turbofan fleet management plan and MTU's strong prospects. For fiscal year 2024, we are proposing a dividend of €2.20 per share to the Annual General Meeting. We would like to thank you, our shareholders, for your loyalty and trust.

I would be delighted if you would continue to accompany MTU on its successful course and also place your trust in Dr. Johannes Bussmann. I'll be handing over the role of CEO of MTU Aero Engines AG to him. I'm certain that MTU is in the best hands with him and the entire Executive Board team.

Sincerely yours,

Lars Wagner

The Executive Board

Lars Wagner

Chief Executive Officer

Born 1975, appointed until December 31, 2025

Degree in mechanical engineering and aerospace engineering and an MBA

Responsibilities:
Human resources, legal affairs, strategy, technology & development, corporate communications; Chief Sustainability Officer (CSO)

Peter Kameritsch

Chief Financial Officer and Chief Information Officer

Born 1969, appointed until December 31, 2025

Degrees in physics and business administration

Responsibilities:
Finance, IT

Dr. Silke Maurer

Chief Operating Officer

Born 1972, appointed until January 31, 2026

Degree in mechanical engineering

Responsibilities:
Purchasing, production, assembly, quality

Michael Schreyögg

Chief Program Officer

Born 1966, appointed until June 30, 2026

Degree in mechanical engineering

Responsibilities:
Marketing & Sales and program management for MTU's commercial and defense programs, MTU Maintenance locations

Report of the Supervisory Board

Gordon Riske
Chairman of the Supervisory Board

MTU can look back on a successful fiscal year. The Group is extremely well positioned in the market, and operationally it is a high performer. This is reflected in the company's profitable growth in 2024 with MTU achieving its forecast and setting new records. Adjusted operating profit surpassed the €1 billion mark in 2024, one year earlier than originally planned. Thanks to its technological edge, balanced portfolio and broad customer base, MTU is well positioned to achieve a further rise in revenue and earnings on an adjusted basis in 2025, and to go on growing beyond 2025. The following sections contain the Supervisory Board's report on its activities in fiscal year 2024. The Supervisory Board will continue its close and trustful collaboration with all stakeholders in 2025.

Monitoring and advisory activities of the Supervisory Board

In this report, the Supervisory Board provides information in accordance with Section 171 (2) of the German Stock Corporation Act (AktG) on its activities in fiscal year 2024 and the results of its review of the annual financial statements and consolidated financial statements, including the combined management report. In 2024, the Supervisory Board carried out, fully and with due care, the duties of oversight and advice entrusted to it by law, the articles of association, and rules of procedure.

It advised the Executive Board on the running of the company on an ongoing basis, continually supported and monitored the management of the business activities and assured itself that the Executive Board's dealings were proper and lawful. The Supervisory Board and its committees were informed and consulted in a direct and timely manner on all decisions of consequence for the company. The Executive Board provided the members of the Supervisory Board with regular, prompt and comprehensive information on the company's situation. The Supervisory Board received written monthly reports on the company's net assets, financial position and results of operations. At its meetings, the Supervisory Board also discussed the business performance of all of MTU's affiliated companies.

The Executive Board discussed the strategy and all important projects with the Supervisory Board. After examination and careful deliberation, the Supervisory Board endorsed the company's strategic orientation with its focus on sustainable and profitable organic growth. The Supervisory Board passed resolutions on all transactions for which its approval was required in accordance with the law, the company's articles of association or the Executive Board's rules of procedure after reviewing and discussing them with the Executive Board. Preparatory meetings can also take place without the Executive Board as necessary. Moreover, the Supervisory Board regularly schedules meetings without the Executive Board.

In 2024, as in previous years, the Supervisory Board examined and oversaw the internal control mechanisms at MTU, especially the risk management system, internal control system, internal auditing and legally compliant corporate governance. With the support of the Audit Committee and in dialogue with the Executive Board, it addressed these systems on a regular basis, as well as their appropriateness and effectiveness. Furthermore, the Supervisory Board looked extensively at the company's compliance.

In view of the legal requirements for stock corporations, which impose an obligation to obtain the consent of the Supervisory Board for certain related party transactions, the Supervisory Board adopted an internal procedure to comply with these requirements in 2020. In the reporting period, there were no transactions requiring consent or disclosure.

Meetings of the Supervisory Board

The Supervisory Board held five regular meetings in 2024. Four of these meetings were held in person and one meeting was held as a hybrid meeting – i.e., some Supervisory Board members attended in person, others by video conference. In addition, there were two extraordinary meetings – one was a hybrid meeting, the other was completely virtual. The members took part in all meetings. Attendance was thus 100 %, like in the previous year.

Supervisory Board members' attendance at meetings of the Supervisory Board and its committees

Supervisory Board members	No. of meetings attended (incl. committee meetings)	Meetings attended in %
Gordon Riske (Chairman)	14 / 14	100%
Josef Mailer (Deputy Chairman)	19 / 19	100%
Dr. Johannes Bussmann (since May 8, 2024)	6 / 6	
Dr. Christine Bortenlänger	14 / 14	100%
Kai Eisenblätter	7 / 7	100%
Daniele Frijia	12/ 12	100%
Dr.-Ing. Marc Haltrich	7 / 7	100%
Anita Heimerl	7 / 7	100%
Dr. Rainer Martens	7 / 7	100%
Dr. Joachim Rauhut (until May 8, 2024)	6 / 6	100%
Claudia Sowa-Frank	14 / 14	100%
Univ.-Prof. Dr. Marion A. Weissenberger-Eibl	7 / 7	100%
Ute Wolf	16 / 16	100%
Average attendance rate		**100%**

At its meeting on March 19, 2024, the Supervisory Board discussed MTU's financial statements. The Supervisory Board adopted the annual financial statements and the consolidated financial statements and approved the combined management report for the company and the Group for fiscal 2023. In addition, it looked in detail at MTU's Annual Report and the allocation of the net profit for 2023 available for distribution and approved the Executive Board's proposal for the distribution of the net profit. A dividend payment of €2.00 per share eligible for the dividend was therefore proposed to the Annual General Meeting on May 8, 2024. The Supervisory Board approved the non-financial statement for the MTU Group and the company for fiscal 2023. Other issues examined by the Supervisory Board were the short-term incentive (STI) payable to the members of the Executive Board for 2023, the presentation of the revised Executive Board compensation system for approval by the Annual General Meeting and the definition of financial and non-financial targets for the STI payable to the Executive Board for 2024. The report of the Supervisory Board to the Annual General Meeting and the agenda for the meeting were also approved. Furthermore, the Supervisory Board approved the management compensation report that was created together with the Executive Board and the corporate governance statement. The Executive Board also reported on the company's situation, including information on industry-wide developments and the planned promissory note, which was concluded in April in the amount of €300 million. Finally, at this meeting, the Supervisory Board determined the qualitative and quantitative target criteria and values for the long-term incentive (Performance Share Plan 2024) and the short-term incentive (STI) of the Executive Board, including the target criteria for the strategic multiplier.

At the meeting on May 8, 2024, the Supervisory Board discussed, among other things, the cooperation agreement with Oerlikon to establish a smart thermal spray factory. The new production facility in Munich, which was officially opened in July, was also discussed. The Executive Board reported to the Supervisory Board on the quarterly figures for the first quarter. At the May meeting and at all subsequent regular meetings, the Executive Board reported on the development of the AOG situation in the PW1100G-JM, PW1500G, and PW1900G GTF programs.

At its meeting on July 30, 2024, the Supervisory Board discussed long-term succession planning for the Executive Board. The Board also approved the issue of a corporate bond with a nominal value of up to €750 million, which was successfully placed during the course of the year. Another important topic was the presentation of new technologies at the Farnborough International Airshow and the orders worth around U.S.$ 800 million that were won. Information was also provided on a transformation program. The Executive Board also reported on the half-year results.

At an extraordinary meeting on September 27, 2024, the Supervisory Board again dealt with long-term succession planning for the Executive Board. In addition, the provider of external support for the self-assessment of the Supervisory Board's effectiveness was presented at this meeting and the next steps in this regard were explained.

At the meeting on October 22, 2024, the Executive Board provided information on the collaboration between MTU and Safran Helicopter Engines and the establishment of EURA, a 50:50 joint venture. The Supervisory Board also received information about enhancements to the technologies and the results of the multi-week tests of a liquid hydrogen fuel system for the Flying Fuel Cell (FFC). The Supervisory Board also discussed the topic of maintenance, in particular the opening of a new warehouse for spare engine parts in the USA. The aim of this expansion is to increase the availability of engine parts for maintenance customers and also to shorten delivery times. There was also a status update on the transformation program. The Executive Board also reported on the nine-month results.

At the meeting on December 9, 2024, the Supervisory Board examined the company's situation and held a detailed discussion of the operational business plans and the budget for 2025. The meeting also included a detailed review and confirmation of the management's compliance with the German Corporate Governance Code (GCGC). Other topics at the meeting included the compensation of the Executive Board, setting the targets and bandwidths for the long-term incentive for the Executive Board (Performance Share Plan 2024) and, in particular, the status of achievement of the ESG targets for 2024 and proposals for ESG targets and strategic multipliers for 2025. The results of the assessment of the Supervisory Board's effectiveness, carried out with the support of an external consultant, were also presented. The Supervisory Board also dealt at length with the sustainability reporting, particularly the CSRD (Corporate Sustainability Reporting Directive) reporting, and adjustments to the Supervisory Board's profile of skills.

At an extraordinary meeting on December 17, 2024, the Supervisory Board discussed succession planning for the CEO following Lars Wagner's surprising announcement that he did not wish to extend his contract. In a unanimous resolution, Dr. Johannes Bussman was appointed the new CEO of MTU Aero Engines AG, thus settling the succession of Lars Wagner, who will move from MTU to Airbus after his mandate at MTU.

At its meetings, the Supervisory Board also discussed the legal requirements and the recommendations of the GCGC regarding Executive Board compensation. The compensation system takes account of sustainability targets and provides for appropriate and motivating compensation.

Between official meetings, the Chairman of the Supervisory Board was regularly briefed on the company's current situation, significant business transactions and important pending decisions.

This entailed regular meetings with the Executive Board, including consulting on strategy, the status of planning, the progress of business, the company's risk situation, the risk management system and compliance.

Corporate governance

The Supervisory Board is convinced that MTU's success is based, among other factors, on good corporate governance. For this reason, in 2024 the Supervisory Board once again looked in detail at the application and implementation of the German Corporate Governance Code (GCGC), based on the current version of April 28, 2022. Furthermore, the Supervisory Board regularly discusses the composition of the Executive Board and Supervisory Board with a view to diversity and the appropriate inclusion of women.

The Supervisory Board's rules of procedure contain binding provisions for dealing with conflicts of interest. Such conflicts must be disclosed and, where appropriate, may result in termination of the member's term of office. This also applies for proposals for election submitted to the Annual General Meeting. There were no conflicts of interest in the reporting period. With the exception of a consulting agreement between a Supervisory Board member and a supplier of the company, there were no consulting agreements, contracts for services or similar contractual agreements between members of the Supervisory Board and MTU Aero Engines AG or any of its subsidiaries, or with customers, suppliers, lenders or other third parties in 2024. If there are any discussions or resolutions affecting this supplier in future, the Supervisory Board member concerned will not take part in them. There were no such discussions or resolutions in the reporting period.

The Supervisory Board also undertook a detailed examination of the recommendations of the GCGC on the independence of the members representing the shareholders. The Supervisory Board deems all of its members to be independent. This expressly applies to the employee representatives and to Dr. Rainer Martens, who ceased to be a member of MTU's Executive Board at the end of 2017. Moreover, it applies to Dr. Joachim Rauhut (member until May 8, 2024), who had been on the Supervisory Board for more than 12 years. Consequently, all Supervisory Board committees consist exclusively of independent members. For the future, the Supervisory Board has set twelve years as the maximum period for membership of the Supervisory Board and considers this to be appropriate for MTU. Members of the Supervisory Board undertake training on their own responsibility, with support from MTU where necessary. MTU may also defray the costs of training. In fiscal 2024, MTU facilitated training measures in the form of training on the topic of CSRD with a total of three training dates. In consultation with the Executive Board, the Supervisory Board ensures long-term succession planning for appointments to the Executive Board. To this end, the Supervisory Board regularly reviews the present term of all Executive Board contracts, always taking into account the age of the Board members, diversity requirements, and the competency profile of potential candidates.

There is an onboarding process for new members of the Supervisory Board. This gives them a thorough insight into MTU's product portfolio, strategy, corporate governance and how the Supervisory Board works.

The Supervisory Board regularly assesses how effectively the Supervisory Board as a whole and its committees perform their tasks. In 2024, the Supervisory Board again conducted a self-assessment of the work in plenary session, with the help of external support. The survey involved conducting interviews with each Supervisory Board member. The topics included, in particular, fields for strategic monitoring, the discussion culture and conflict resolution potential, strategic dialogue, the Supervisory Board's profile of skills, committee work, and cooperation with the Executive Board. The Audit Committee also carried out another self-assessment in 2024. This too was carried out with external support in the form of interviews with each committee member. The self-assessment focused on the area of responsibility and, in particular, also management of and cooperation within the committee. The results were presented at the meeting of the Supervisory Board and the Audit Committee on December 9, 2024. They form the basis for the ongoing development of the work of the Supervisory Board and for its competence profile. The Supervisory Board and the Audit Committee both assessed their work as efficient and resolved to take only selective measures to improve the way in which work is organized in plenary and committee meetings.

Cooperation between the Supervisory Board and the Executive Board, and among the members of the Supervisory Board, in the past fiscal year was judged to be very good. No conflicts of interest arose between MTU and any member of its Executive Board or Supervisory Board.

In a joint declaration with the Executive Board dated December 9, 2024 and December 17, 2024 (update), in accordance with the requirements of Section 161 AktG, the Supervisory Board states that MTU Aero Engines AG complies with all the recommendations of the German Corporate Governance Code in the version dated April 28, 2022 with one exception. Contrary to this GGCC recommendation, on the departure of the current CEO, Dr. Johannes Bussmann was appointed to the Executive Board for a period of five years. This declaration of conformity is reproduced in this Annual Report in the section of the management report headed *Corporate governance statement*, together with a more detailed description of the company's corporate governance system. The declaration has also been posted on the MTU website.

The Chairman of the Supervisory Board, Gordon Riske, held a corporate governance roadshow in December 2024 and January 2025. The main topics were the composition of the Executive Board and Supervisory Board, an upcoming personnel matter – the election of Dr. Peter Weckesser as a member of the Supervisory Board –, the succession arrangements for Lars Wagner, reactions to the new compensation system in 2024, and the provisional agenda for the 2025 Annual General Meeting. With regard to Executive Board compensation in fiscal year 2024, the first year under the new system, the Chairman of the Supervisory Board has taken note of investors' desire for a high degree of transparency – particularly with regard to target criteria and values for the variable remuneration components (short-term and long-term incentives). This is taken into account in the compensation report.

Committee meetings

By convention, the Supervisory Board has three committees with equal numbers of employee and shareholder representatives: an Audit Committee, a Personnel Committee and – in compliance with Section 27 (3) of the German Codetermination Act (MitbestG) – a Mediation Committee. Each of these committees presents regular reports on its activities at the plenary meetings of the Supervisory Board.

A Nomination Committee, which meets on an ad hoc basis, has been set up in accordance with the recommendations of the GCGC. The task of the Nomination Committee is to find suitable candidates for election to the Supervisory Board. Its members are Gordon Riske (Chair) and Ute Wolf (since May 8, 2024) / Dr. Joachim Rauhut (until May 8, 2024). In 2024, the Nomination Committee held two meetings – with regard to appointing a successor to Dr. Joachim Rauhut, who stepped down from the Supervisory Board at the end of the 2024 Annual General Meeting. In addition to the competencies of potential candidates, special attention was paid to their available time. The Supervisory Board also examined the availability of its current members. It concluded that all its members, without exception, have sufficient time for their work on MTU's Supervisory Board and its committees in addition to their other professional activities and that their availability is good. This is reflected both in the very high attendance rates at plenary and committee meetings (100% in 2024) and in the careful preparation and follow-up of these meetings (which have been extended since spring 2023), enabling intensive and in-depth discussions in the various bodies and with the Executive Board.

The Personnel Committee is responsible, among other things, for concluding contracts with the Executive Board, including on their compensation, and for proposing candidates for the Executive Board. The members of this committee are Gordon Riske and Ute Wolf (since May 8, 2024) / Dr. Joachim Rauhut (until May 8, 2024) and the employee representatives Josef Mailer and Daniele Frijia. In the past year, the Personnel Committee held five meetings – three of which were extraordinary meetings (two virtual, one hybrid) (total attendance: 100%). Issues examined included the short-term incentive (STI) payment to the members of the Executive Board for 2023, the definition of targets and bandwidths for the long-term incentive for the Executive Board (Performance Share Plan 2024) including the targets and bandwidths for the ESG criteria, and the recommendation to the Supervisory Board for the appointment and compensation of members of the Executive Board. Other topics were the status of achievement of the ESG targets for 2024 and a discussion of the proposed ESG targets and strategic multipliers for 2025. The committee also held intensive discussions on the succession of CEO Lars Wagner, who had informed the Supervisory Board in October 2024 that he did not want to extend his contract, which was to run until December 31, 2025. On December 17, 2024, Dr. Johannes Bussmann was appointed as the new CEO.

The Mediation Committee, whose members are identical with those of the Personnel Committee, did not have to convene in 2024.

The Audit Committee is composed of Ute Wolf (Chair; since May 8, 2024) / Dr. Joachim Rauhut, (Chair; until May 8, 2024), Dr. Christine Bortenlänger, Claudia Sowa-Frank, and Josef Mailer. In the past year, it met six times in regular meetings and once in an extraordinary hybrid meeting. Attendance was 100%.

The Audit Committee focused on reviewing the annual financial statements, the consolidated financial statements and the combined management report, including the non-financial statement of the MTU Group and MTU Aero Engines AG as well as the company's net assets, financial position and results of operations, and the annual and half-year reports and quarterly statements. In addition, it prepared the Supervisory Board's proposal to the Annual General Meeting on the appointment of the auditor and the auditor of the sustainability report. Further, it was responsible for engaging the auditor, the agreement with the auditor on the audit fees, and for specifying the key areas of focus for the audit of the annual financial statements and consolidated financial statements for 2024. In addition, the budget for non-audit services was reviewed and approved.

The Audit Committee oversaw the quality of the audit and the independence of the auditor, which had been confirmed by the auditor. Furthermore, the Audit Committee discussed the additional services provided by the auditor. The procedure for procuring the non-audit services provided by the auditors was reviewed and affirmed and the content and fees for such services in the reporting period were approved on a case-by-case basis.

At six of its seven regular meetings in the reporting year and through additional direct discussions between the Chairman of the Audit Committee and the auditor, the Audit Committee obtained reports on the auditor's strategy and approach, the audit process – especially its effectiveness and progress – and the results of the audit, and critically scrutinized these. Moreover, it examined the qualification of the persons engaged to conduct the audit and the auditor's general quality assurance concept and its practical application.

The committee and other members of the Supervisory Board received the audit reports from KPMG for their deliberations. These documents were reviewed in detail in the presence of the auditor. On this basis, the committee recommended that the Supervisory Board should adopt the financial statements and consolidated financial statements for the fiscal year 2024, and approve the combined management report and the Executive Board's profit distribution proposal.

In accordance with statutory requirements, the Audit Committee monitored the accounting process, the accounting-related internal control and risk management system and the internal auditing system, and addressed their appropriateness and effectiveness. It oversaw the company's compliance activities and received reports from the internal auditors. As part of this process, the Audit Committee received reports from the heads of Corporate Audit and Compliance and on the system for monitoring transactions with related parties.

Furthermore, the Audit Committee discussed the implementation of the Corporate Sustainability Reporting Directive (CSRD) at MTU and the regular provision of information on the status of the project to prepare the CSRD reporting. It also discussed the development of a plan for adjusting financial performance indicators. The committee also discussed the status of corporate financing, particularly with regard to the group financing instruments placed in the fiscal year, the borrower's note loan and the corporate bond, and examined MTU's quarterly financial statements. In addition, the committee obtained information on the status of non-financial reporting, the company's procedure for determining and reporting adjusted performance indicators and the organization of the accounting system, the ongoing development of the risk management system and the internal control system, and issues relating to compliance and internal auditing.

Adoption of the annual financial statements, the approved consolidated financial statements and the management report

The annual financial statements, consolidated financial statements and combined management report of the MTU Group and MTU Aero Engines AG for 2024 were audited by KPMG, Munich, whose appointment was approved by the Annual General Meeting. KPMG issued an unqualified audit opinion. This was signed by Johannes Hanshen and Angelika Huber-Straßer, who have audited MTU since fiscal year 2023. The audit reports and documents to be reviewed were submitted in good time to all members of the Supervisory Board. The Chair of the Audit Committee reported to the Supervisory Board on the audit performed by KPMG. On this basis, the Supervisory Board conducted a thorough review of the annual financial statements, consolidated financial statements and combined management report of the MTU Group and MTU Aero Engines AG for fiscal year 2024 and the Executive Board's proposal for the distribution of the net profit. The auditor attended the meetings of the Audit Committee of MTU Aero Engines AG on October 22, 2024, December 9, 2024, January 23, 2024 and March 11, 2025 and the meeting held by the Supervisory Board on March 18, 2025 to discuss the financial statements, and presented the main findings of the audit. The Supervisory Board reviewed the annual financial statements, consolidated financial statements, combined management report including the sustainability statement, and the profit distribution proposal, and raised no objections. The company's annual financial statements and consolidated financial statements for 2024, as submitted by the Executive Board, were approved at the Supervisory Board's meeting on March 18, 2025. The annual financial statements are therefore adopted. The Supervisory Board agreed to the Executive Board's proposal for the distribution of the net profit after giving due consideration to the interests of the company and its shareholders. A dividend payment of €2.20 per share eligible for the dividend will therefore be proposed to the Annual General Meeting.

Changes in the governing bodies

There was one change in the Supervisory Board in 2024. There were no changes on the employee representatives' side. On the shareholder representatives' side, the term of office of Dr. Joachim Rauhut ended at the end of the Annual General Meeting on May 8, 2024. The Supervisory Board thanks Dr. Joachim Rauhut for his many years of service and his enormous commitment. Dr. Johannes Bussmann is a new member of the Supervisory Board. He was elected to the Supervisory Board of MTU at the company's Annual General Meeting on May 8, 2024 with 97.83% of the votes.

The Supervisory Board appointed Dr. Johannes Bussmann as MTU's new CEO on December 17, 2024. He is to take on the new role in 2025, thus succeeding Lars Wagner. The Supervisory Board would like to thank Mr. Wagner for his outstanding work over the past years and the planned smooth handover of the role during 2025. In its meeting on January 23, 2025, the Supervisory Board also appointed Ms. Katja Garcia Vila as the new Chief Financial Officer. Ms. Katja Garcia Vila will succeed Mr. Peter Kameritsch as member of the Executive Board. Ms Katja Garcia Vila will join MTU on April 1, 2025, and will assume the role of Peter Kameritsch after a joint transition period on July 1, 2025.

The Supervisory Board would like to thank the Executive Board for its close and constructive collaboration. It would also like to thank all employees and the Works Council for their successful work and enormous commitment in 2024. Moreover, the Supervisory Board is grateful to all MTU's shareholders for the trust they place in the company.

Munich, March 18, 2025

Gordon Riske
Chairman of the Supervisory Board

The Supervisory Board

Members of the Supervisory Board and the additional mandates they hold on supervisory boards or comparable oversight bodies of other business enterprises in Germany or abroad

Gordon Riske

Chairman of the Supervisory Board

Independent Management Consultant

*Former CEO of KION Group AG,
Frankfurt am Main*

Atlas CopCo AB, Sweden
Sunlight Group Energy Storage Systems S.A., Greece

Josef Mailer

Deputy Chairman of the Supervisory Board

Chairman of the Group Works Council of MTU Aero Engines AG, Munich

Chairman of the Works Council of MTU Aero Engines AG, Munich, until July 25, 2024

Dr. Johannes Bussmann, since May 8, 2024

Chief Executive Officer of TÜV SÜD AG, Munich

AS GmbH (TÜV SÜD AG Group)
Diehl Stiftung & Co. KG
TÜV Hessen GmbH (TÜV SÜD AG Group)

Dr. Christine Bortenlänger

Independent Consultant

Former Chief Executive of Deutsches Aktieninstitut, Deutsches Aktieninstitut e.V., Frankfurt am Main

Covestro AG
Covestro Deutschland AG (Covestro Group)
Siemens Energy AG, until February 20, 2025
Siemens Energy Management GmbH, until February 20, 2025 (Siemens Energy Group)
TÜV SÜD AG

Kai Eisenblätter

*Chairman of the Works Council of MTU Maintenance Hannover GmbH, Hannover
Deputy Chairman of the Group Works Council of MTU Aero Engines AG, Munich*

MTU Maintenance Hannover GmbH

Daniele Frijia

Managing director and cashier of IG Metall Munich

Linde GmbH
Linde Holding GmbH
Nokia Solutions and Networks Management GmbH

Dr.-Ing. Marc Haltrich

Senior Consultant Powder Metal, MTU Aero Engines AG, Munich

Anita Heimerl

Member of the Group Works Council of MTU Aero Engines AG, Munich, until September 4, 2024

Full-time member of the Works Council of MTU Aero Engines AG, Munich

Dr. Rainer Martens

Independent Consultant

Former Chief Operating Officer of MTU Aero Engines AG, Munich

Renk Group AG, until February 21, 2024

Dr. Joachim Rauhut, until May 8, 2024

Independent Consultant

Former member of the Executive Board of Wacker Chemie AG, Munich

Stabilus S.A.

Claudia Sowa-Frank

Lawyer for the IG Metall Executive Board, Frankfurt/Main

Univ.-Prof. Dr. Marion A. Weissenberger-Eibl

Director of the Fraunhofer Institute for Systems and Innovation Research ISI in Karlsruhe and holder of the Chair of Innovation and Technology Management at the Karlsruhe Institute of Technology

Heidelberg Materials AG, until May 8, 2024
Semperit Aktiengesellschaft Holding, Austria
ExxonMobil Central Europe Holding GmbH

Ute Wolf

Independent Consultant

Former member of the Executive Board (CFO) of Evonik Industries AG

Akzo Nobel N.V., Amsterdam, since April 25, 2024
DWS Group GmbH & Co. KGaA
Klöckner & Co. SE, until May 23, 2024
Infineon Technologies AG

SUPERVISORY BOARD COMMITTEES

Personnel Committee

Gordon Riske, Chairman
Daniele Frijia
Josef Mailer
Dr. Joachim Rauhut, until May 8, 2024
Ute Wolf, since May 8, 2024

Audit Committee

Ute Wolf, Chairman, since May 8, 2024
Dr. Joachim Rauhut, Chairman, until May 8, 2024
Dr. Christine Bortenlänger
Josef Mailer
Claudia Sowa-Frank

Mediation Committee

Gordon Riske, Chairman
Daniele Frijia
Josef Mailer
Dr. Joachim Rauhut, until May 8, 2024
Ute Wolf, since May 8, 2024

Nomination Committee

Gordon Riske, Chairman
Dr. Joachim Rauhut, until May 8, 2024
Ute Wolf, since May 8, 2024

The MTU share

Equity markets at record high

2024 was dominated by central bank monetary policy, the war in Ukraine, the Middle East conflict and international tensions as well as the U.S. elections. Global equity markets were bullish, driven in particular by monetary easing as both the European Central Bank and the U.S. Federal Reserve lowered key interest rates. The year as a whole saw high price gains on stock markets worldwide.

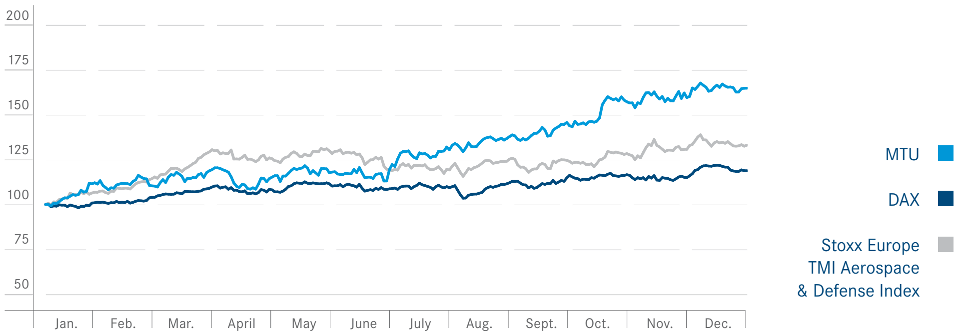
The German blue-chip index, DAX, also posted a positive performance in 2024. The DAX started the year at 16,769 points and reached its low for the year of 16,432 points on January 17, 2024. By March there had been a notable uptick and the index topped 18,000 points for the first time. It fluctuated over the next few months and temporarily dipped to around 17,300 points. This brief but sharp correction in the global markets was triggered by an interest rate hike in Japan and concerns that the U.S. economy might be weakening. But the markets rallied quickly and rose steeply until October. By September the DAX had surpassed 19,000 points, and on December 12, 2024 it hit an all-time high of 20,426. The German stock market barometer ended 2024 at 19,909 points, an increase of 18.8 % over the year. Stock markets saw strong gains worldwide. In the U.S., the Dow Jones Industrial Average was up by 12.9% and the Nasdaq 100 Technology Sector Index by 24.9%.

The aviation industry likewise continued to grow over the past year. According to the International Air Transport Association (IATA), the positive trend in passenger traffic continued. Global passenger numbers outstripped pre-pandemic levels for the first time. This also benefited the sector index: The Stoxx Europe TMI Aerospace & Defense Index, which includes shares in MTU as well as the Airbus Group, Safran, and Rolls-Royce, posted a positive trend in 2024 and rose over the year. It ended 2024 up 33.1%.

MTU share hits new all-time high

MTU's share price made a remarkable recovery in 2024, reaching a new high of €327.60 on December 4. The low was €193.80 on January 3. It had already posted a steady rise in the first quarter and passed the €200 mark in January. The share price then trended sideways until the end of June. Raised guidance for the first half and optimistic expectations for the rest of the year further boosted the share price. In mid-October, the MTU share not only surpassed its previous all-time high of €286.70 from 2020, but broke through the €300 mark for the first time in the company's history. In the nine-month results at the end of October, the guidance for adjusted EBIT was raised again to just over one billion euros. The positive outlook for 2025 published at the end of November bolstered the share price yet again, to a new all-time high of €327.60 on December 4. At the end of the year, MTU shares closed at €322.00, posting an impressive year-on-year increase of 64.9% and far outperforming the DAX and the Stoxx Europe TMI Aerospace & Defense Index. MTU's market capitalization was around €17 billion at year-end 2024.

MTU share performance in 2024 compared with stock market indices (indexed, 12/31/2023 = 100)



Year-on-year indicators for shares in MTU

		2024	2023
Highest price for the year[1]	€	327.60	244.50
Lowest price for the year[1]	€	193.80	161.20
Price at start of year[1]	€	195.05	206.50
Year-end price[1]	€	322.00	195.25
Performance over the year[2]	%	64.90	-3.44
Market capitalization at year end	€ million	17,331	10,500
Average daily trading volume	€ million	31	34
	thousand shares	124	169
Earnings per share	**€**	**11.77**	**-1.90**
Dividend per share	**€**	**2.20[3]**	**2.00**

[1] Xetra closing price.
[2] Based on Xetra year-end share price (Dec. 31).
[3] Proposal to the Annual General Meeting.

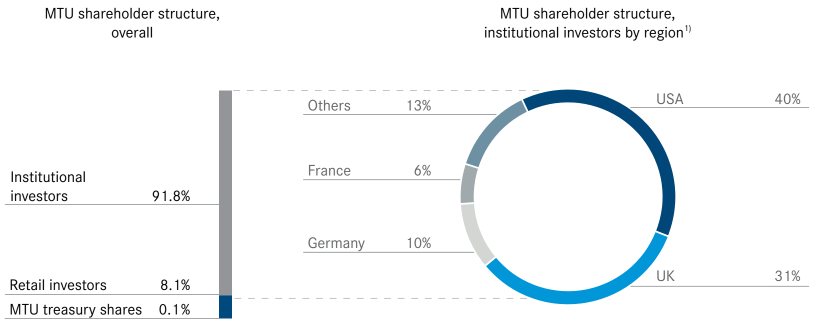
Dividend increase

Shareholders participate in MTU's success through a dividend. The Executive Board and Supervisory Board have decided to propose a dividend of €2.20 per share for fiscal year 2024. This is a 10% increase on the previous year's dividend of €2.00 per share. The proposal will be put forward for approval at the Annual General Meeting on May 8, 2025. The dividend would be paid on May 13, 2025. The payment ratio would be 16% of MTU's adjusted net income.

Higher trading volume

The average number of MTU shares traded via Xetra trading last year was 124,000 shares per day, compared with 169,000 per day in the previous year. The highest number of shares traded was 434,161 on January 23, 2024. The average daily trading volume was around €31 million (previous year: €34 million). At the end of 2024 MTU ranked 24th in the DAX 40 index in terms of market capitalization (previous year: 32nd).

Shareholder structure



[1)] Estimate, based on shareholder analysis. As of end of October 2024.

High proportion of institutional shareholders

Voting rights totaled 53,824,489 in 2024. The free float was 100% on December 31, 2024. 0.1% of the shares were held by the company. Around 92% of the free float was held by institutional investors and 8% by retail investors. The majority of institutional investors are based in the USA, continental Europe, and the UK. At the end of 2024, notifications under Section 33 of the German Securities Trading Act (WpHG) had been received from the following institutional investors:

Institutional investors with voting rights > 3%

DGAP	Investor	Voting rights in %*	No. of MTU shares
24/12/2024	BlackRock Inc., USA	13.72	7,384,812
25/11/2024	Morgan Stanley, USA	4.75	2,555,519
22/11/2024	Europacific Growth Fund, USA	5.01	2,698,759
11/10/2024	BlackRock Global Funds, Luxembourg	3.09	1,661,898
14/08/2024	UBS Group AG, Switzerland	3.27	1,757,457
15/01/2024	DWS Investment, Germany	3.13	1,686,726
01/12/2021	Kenneth C. Griffin	3.03	1,630,560
18/02/2021	The Capital Group Companies, Inc., USA	9.87	5,313,778
26/09/2018	Massachusetts Financial Services Company, USA	4.76	2,561,829

* Investor share in % translated on the basis of the current voting rights of 53,824,489.

Broad coverage by analysts

In 2024, 25 analysts were reporting regularly on MTU. At the end of December, 13 financial institutions rated the stock as a buy, 9 had it on hold and 3 had a sell recommendation (2023: 17 "buy," 9 "hold," 0 "sell"). The average price target was €326.

The following financial institutions report regularly on MTU:

Agency Partners	Exane BNP Paribas	Morgan Stanley
Alpha Value Research	Goldman Sachs	ODDO Securities Research
Barclays	Hauck & Aufhäuser	Redburn Atlantic
Berenberg	HSBC	Stifel
BernsteinResearch	Jefferies	UBS
Bank of America	J.P. Morgan	Vertical Research
Citi Global Markets Research	Kepler Cheuvreux	Warburg Research
Deutsche Bank	Landesbank Baden-Württemberg	
DZ Bank	Metzler	

Intensive investor relations work

In 2024, MTU once again organized many IR events. One-on-one meetings and investors' conferences were held as both in-person and remote events. In all, MTU took part in 14 international investors' conferences, including the German Investment Seminar organized by Oddo and Commerzbank in New York, the Goldman Sachs 16th Annual Industrials & Auto Week in London, the German Corporate Conference organized by Kepler Cheuvreux in Frankfurt and numerous investors' conferences held by various banks in London.

An important platform for communicating with shareholders was the MTU Annual General Meeting, which was once again held digitally in the form of a video webcast on May 8, 2024. Around 71% of the share capital with voting rights was represented (previous year: around 72%).

In all, MTU had around 1,000 contacts with investors in 2024.

The Capital Market Day previously planned for November 29, 2024 was postponed. Instead, MTU published its 2025 guidance at the end of November.

Information on IR topics can be found in the *Investors section of the MTU website (www.mtu.de)*. You are also welcome to contact the IR team by calling +49 (0)89 1489-4787.

Management compensation report

The compensation report describes the principles applied in determining the compensation for the Executive Board and Supervisory Board of MTU Aero Engines AG, and states the amount and composition of that compensation. The management compensation report complies with the provisions of Section 162 of the German Stock Corporation Act (AktG) and was prepared jointly by the Supervisory Board and the Executive Board.

Principles of the compensation system for members of the Executive Board

"At the proposal of the Personnel Committee of MTU Aero Engines AG, the Supervisory Board decides on a system of compensation for the members of the Executive Board, including the material contractual elements such as the total amount of the compensation and its breakdown into non-performance-related and performance-related components. The Personnel Committee reviews the appropriateness and market alignment of the Executive Board compensation on a regular basis. For this, it also uses the expertise of independent external compensation experts with regard to both the compensation system and the structure of the target direct compensation compared with relevant stock market segments. In the case of MTU, cross-comparisons are made by reference to the DAX stock market segment (peer group for cross-group or horizontal comparison). In accordance with the statutory requirements, the compensation system is resubmitted to the Annual General Meeting for approval no later than every four years or, in deviation from this, in the event that the Supervisory Board identifies a need for modifications. (ESRS 2 GOV-3-29e)"[1]

The current compensation system was designed in accordance with the requirements of the Second Shareholders' Rights Directive (ARUG II) and the German Corporate Governance Code (GCGC) and was approved by 56.51% at the Annual General Meeting on May 8, 2024 (agenda item 8). It has been applied on this basis since fiscal year 2024. From the Supervisory Board's perspective, the relatively low approval of the remuneration system is due, in particular, to the authorization of the Supervisory Board to grant an additional, performance-related compensation component in special exceptional circumstances. Other points raised included the adjustment of the maximum remuneration and individual aspects of the measurement of target achievement for performance-related remuneration components. In the run-up to the Annual General Meeting, the Supervisory Board addressed the criticisms of the compensation system and published its considerations in this regard: *https://www.mtu.de/fileadmin/EN/5_Investor_Relations/9_1_Annual_General_Meeting/2024_AGM_A_04_Top_8__further_info_remuneration_system_MTU.pdf*.

[1] This disclosure is part of MTU Aero Engines AG's Group Sustainability Statement for fiscal year 2024.

In response to feedback on the compensation system from investors and shareholders, in the reporting year the Supervisory Board resolved to no longer use its authorization to grant an additional, performance-related compensation in special exceptional circumstances from the 2025 fiscal year onward (further information can be found in the section headed Compensation components and structure/ Performance-related components/ Additional, performance-related compensation in special exceptional circumstances.

In accordance with Section 120a (4) of the German Stock Corporation Act (AktG), the compensation report 2023 was submitted to the Annual General Meeting for approval on May 8, 2024 and was approved by 92.55% of the votes cast.

Principles of total compensation

The table below shows the basic components of the current, approved compensation system:

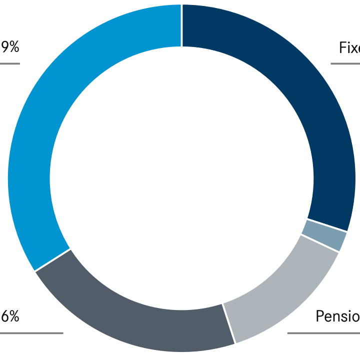
Structure of the compensation system (total target direct compensation)

Non-performance-related components	Fixed compensation	Contractually agreed fixed compensation, paid in 12 equal installments
	Fringe benefits	– Taxable reimbursements of expenses – Cash equivalent of payments in kind – Insurance premiums
	Pension arrangements	As of January 1, 2021, newly appointed Executive Board members receive an annual cash pension allowance for their own pension provision instead of a defined benefit commitment to a company pension
Performance-related components	Short-term incentive (STI) (performance-related component excluding long-term incentive)	Financial and ESG performance criteria: - 50% EBIT (adjusted) - 30% free cash flow (adjusted) - 20% ESG targets Capped at 0%-200% Strategic targets taken into account by multiplier (0.8-1.2) Cap: 240% of the target amount
	Performance Share Plan (PSP/LTI) (performance-related component with long-term incentive)	Performance period: 4 years Financial and ESG performance criteria: - 40% relative total shareholder return (rTSR) - 40% earnings per share (EPS) (adjusted) - 20% ESG targets Capped at 0%-200% Cap (incl. share price performance and dividend payments): 250% of the target amount
	Additional, performance-related compensation in special exceptional circumstances *)	Possibility for the Supervisory Board to award an additional performance-related compensation in special exceptional circumstances Cap: 80% of base compensation

*) Resolution by the Supervisory Board in the reporting year: Waiving the ability to grant this performance-related component from the 2025 financial year onwards - further explanations in the section headed Compensation components and structure / Performance-related components / Additional, performance-related compensation in special exceptional circumstances.

"The share of the ESG targets in the variable compensation is 20% for both the STI and the LTI, regardless of a possible strategic multiplier. (ESRS-2 GOV-3 29d)"[2]

Structure of the total target compensation



Note: If a member of the Executive Board receives a payment to compensate for the loss of remuneration claims against the previous employer in connection with their initial appointment or is granted an additional, performance-related compensation in special exceptional circumstances, the proportions of the individual components may differ.

All amounts are rounded to full euros, unless otherwise specified. Due to rounding, it is possible that individual amounts in the compensation report may not correspond exactly to the totals stated and that the percentages presented may not correspond exactly to the absolute amounts they refer to.

Compensation components and structure

The compensation of the Executive Board members is made up of non-performance-related and performance related components, the sum of which constitutes the total compensation of an Executive Board member.

[2] This disclosure is part of MTU Aero Engines AG's Group Sustainability Statement for fiscal year 2024.

Non-performance-related components

The non-performance-related compensation is paid monthly and comprises fixed compensation, fringe benefits and pension benefits. The fringe benefits include reimbursement of expenses and remuneration in kind such as the use of a company car for business and private purposes, an annual medical check-up, including taxes paid on these in individual cases.

The members of the Executive Board are covered by a directors' and officers' liability insurance policy taken out by MTU. This insurance policy provides for the statutory deductible for the Executive Board stipulated by Section 93 (2) sentence 2 of the German Stock Corporation Act (AktG).

Executive Board members appointed for the first time before fiscal year 2021 earn vested entitlements to a direct defined benefit commitment. Executive Board members appointed for the first time after January 1, 2021 receive a pension allowance in the form of a lump-sum payment for their own pension provision, which is paid out annually in cash, instead of an entitlement to a direct defined benefit commitment.

Additional information on the contractual structure of the pension arrangements can be found in the following *section headed Rules when terminating the contracts of members of the Executive Board/ Pension arrangements*.

Performance-related components

The performance-related compensation is generally made up of the short-term incentive (STI - Short-Term Incentive) component and Performance Share Plan (PSP or LTI – Long-Term Incentive) component.

The payout of the performance-related compensation component with a short-term incentive effect - annual performance remuneration (STI) - takes into account the achievement of the financial performance criteria - EBIT (adjusted) and Free Cash Flow (adjusted) - as well as the non-financial performance criteria - the so-called ESG targets (ESG - Environmental, Social and Governance) - the qualitative criteria of the strategic multiplier defined for the respective financial year.

The payment of the performance-related compensation component with long-term incentive effect – the Performance Share Plan (PSP/LTI) – takes into account the development of the MTU share price, the achievement of financial performance criteria – relative total shareholder return (rTSR) and earnings per share (adjusted) – and the non-financial performance criteria – the ESG (environmental, social and governance) targets. This is intended to ensure that corporate governance focuses on the sustainable success of the company, its investors, and other stakeholders.

In order to appropriately reflect structural changes in MTU's business activities in the incentive system, the Supervisory Board has the option of, at its reasonable discretion, on an event-driven basis to substitute individual financial and/or non-financial performance criteria and their respective weighting with equivalent performance criteria that are also the subject of external financial or non-financial reporting. If the performance criteria are adjusted in this way, this is generally done before, or at the latest at the beginning of the fiscal year for which the short-term incentive (JEV/STI) or the Performance Share Plan (PSP/LTI) is granted. For the reporting year and the following year, the Supervisory Board did not identify any structural changes in business activities that would have given it cause to substitute individual financial and/or non-financial performance criteria or their weighting in the STI or PSP/LTI. In the reporting year, the Supervisory Board decided that it would no longer make use of the authorization in the compensation system to grant additional, performance-related compensation in special exceptional circumstances from the 2025 fiscal year. With its resolution, the Supervisory Board considers the compensation system to have been adjusted appropriately in accordance with the feedback received from investors and shareholders (further information can be found in the *section headed Compensation components and structure/ Performance-related components/ Additional, performance-related compensation in special exceptional circumstances*.

Short-term incentive (STI)

The short-term incentive (STI) with a one-year assessment period (performance period) is granted for each fiscal year as performance-related compensation with short-term incentive effect. It amounts to around 40% of the Executive Board's target performance-related direct compensation and is intended to reward the achievement of operational targets that are of particular importance to MTU's development.

The compensation component is granted to the members of the Executive Board for each fiscal year (assessment period) in the amount of the target amount defined individually in the Executive Board employment contract. The payout of the annual performance-related remuneration (STI) is based on the achievement of the target values determined by the Supervisory Board for the financial year for the financial and non-financial (ESG targets) performance criteria or the criteria of the strategic multiplier. The Supervisory Board uses the latter to provide the Executive Board with a balanced range of objectives that are intended to reward the achievement of operational and strategic objectives.

The Supervisory Board determines the weighting and the target minimum and maximum values for the specific financial and non-financial (ESG targets) performance criteria at the latest at the beginning of the respective financial year. After the end of the fiscal year, the value actually achieved for each financial performance criterion and non-financial performance criterion (ESG targets) is compared with the target value previously set.

Target achievement is 0% if the realized result is below the minimum value set by the Supervisory Board for the respective financial and non-financial (ESG targets) performance criterion. If the minimum value is not reached, the distribution for the respective criterion is forfeited. If the minimum value is reached, the payout ratio for the respective criterion corresponding to the target achievement is 50%. If the defined target value is reached, the payout level for the respective criterion corresponding to the target achievement is 100%. If the defined maximum value is reached or exceeded, the payout level for the respective criterion corresponding to the target achievement is 200% (cap). Between these three defined points, linear interpolation is applied. The STI overall target achievement is calculated as the arithmetic mean of the weighted payout ratios for the financial and non-financial performance criteria determined for the assessment period (performance period).

The Supervisory Board defines the criteria for the strategic multiplier in the form of specified targeted states, which it determines as either achieved or not achieved based on its detailed analysis of the relevant topics during the assessment period. For each criterion, it defines a fixed decimal contribution for the strategic multiplier. If criteria are met, the base value of the strategic multiplier is increased from 0.8 up to a maximum value of 1.2 (if all criteria are met). The overall target achievement determined for the financial and non-financial performance criteria is scaled by applying the strategic multiplier set for the fiscal year, and the STI payout ratio is calculated on this basis. The contractually defined, individual STI target amount is multiplied by the STI payout ratio and, after deduction of the relevant taxes, paid out to the individual Executive Board member as a cash payment in the following year, taking into account the cap of 240% of the respective contractual target amount for the STI at the grant date (STI cap).

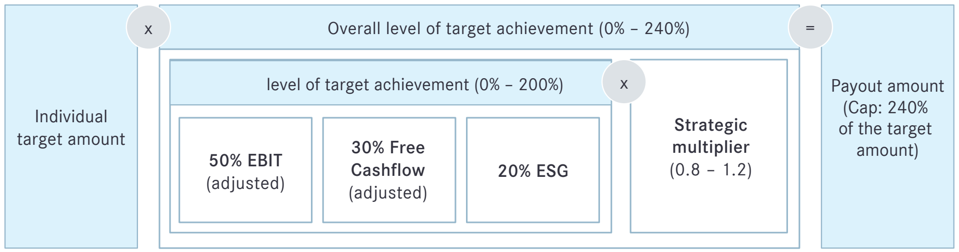
When calculating the target achievement of the financial and non-financial performance criteria, the Supervisory Board must, at its due discretion and in justified special circumstances, take into account exceptionally positive and negative developments that have no specific connection to the Executive Board's performance. Only significant business changes that are not taken into account conceptually in the objectives can be considered as exceptional developments. Generally unfavorable market developments explicitly do not constitute exceptional developments. For the reporting year, the Supervisory Board did not identify any justified special circumstances that gave it cause to adjust the target achievement of the STI criteria at its due discretion relative to the methodological requirements of the compensation system.

The individual STI target amount per Executive Board member, the target values set by the Supervisory Board for the financial performance criteria, non-financial performance criteria (ESG targets) and strategic multiplier criteria, the target achievement determined on this basis, the overall target achievement, the resulting payout ratio and the corresponding payout amounts are shown below.

Financial and non-financial performance criteria of the short-term incentive (STI)
For the reporting year, the Supervisory Board defined the following financial and non-financial performance criteria with their corresponding weighting in the context of the overall target achievement:

/ EBIT (adjusted) – 50% (financial performance criterion)
/ Free cash flow (adjusted) – 30% (financial performance criterion)
/ ESG targets – 20% (non-financial performance criterion)

Short-term incentive (STI)



EBIT (adjusted) – financial performance criterion
Adjusted earnings before interest and taxes (adjusted EBIT) does not fall under the regulation of the International Financial Reporting Standards (IFRS) and is explicitly regarded as a supplement to the key figures reported in accordance with IFRS and is calculated as follows: :

/ "Effects from purchase price allocation",
/ "Effects from the upshare of the IAE-V2500 program participation",
/ "Effects from the GTF™-fleet management plan",
/ "material aperiodic contribution to earnings" in accordance with the respective materiality threshold determined by the Supervisory Board

In this context, the qualification of an item as a special item to be adjusted in the calculation of adjusted earnings before interest and taxes (adjusted EBIT) is always carried out by mutual agreement between the Executive Board and the Supervisory Board.

Background information and quantified details of the special items for which adjustments were made in the reconciliation to adjusted EBIT in the reporting period can be found in the management report in the *section headed Economic report / Results of operations / Reconciliation to adjusted key financial performance figures – Results of operations*.

Free cash flow (adjusted) – financial performance criterion
Free cash flow (adjusted) does not fall under the regulation of the International Financial Reporting Standards (IFRS) and is explicitly regarded as a supplement to the key figures reported in accordance with IFRS and is calculated as follows: MTU calculates free cash flow from the sum of cash flows from operating activities and cash flows from investing activities calculated in accordance with IFRS, with the cash flows from investing activities adjusted for the following special payment items, as in previous years:

- Cash flows in connection with interest-bearing sales financing and financial investments as part of liquidity management,
- cash flows in connection with the acquisition of shares in OEM or MRO programs, in accordance with the respective materiality threshold determined by the Supervisory Board,
- cash flows in connection with the acquisition or sale of significant shareholdings, in accordance with the materiality threshold determined by the Supervisory Board.

In this context, the qualification of an item as a special item to be adjusted in the derivation of free cash flow (adjusted) is always carried out by mutual agreement between the Executive Board and the Supervisory Board.

Background information and quantified details of the special items for which adjustments were made in the reconciliation to adjusted free cash flow in the reporting period can be found in the management report in the section headed Economic report / Financial position / Liquidity analysis / Reconciliation to adjusted key financial performance figures – Financial position.

ESG targets – non-financial performance criterion

The ESG performance criteria are defined by the Supervisory Board for each fiscal year, taking into account MTU's sustainability strategy. To this end, the Supervisory Board selects up to three non-financial performance criteria (ESG targets) and defines quantifiable target values to be achieved within the STI assessment period (performance period). The inclusion of ESG targets in the STI underscores the ambition of the company's management and Supervisory Board to achieve sustainable business development that takes appropriate account of the interests of all ESG stakeholders and thus boosts the MTU Group's future viability.

List of ESG criteria

Environmental management	Social commitment	Compliance	Growth & resilience	Product responsibility & quality
Innovation	Employer attractiveness	Employees & diversity	Responsible procurement	Digital

An explanation of the non-financial performance criteria selected for the reporting year and how they were determined in the context of target achievement can be found in the following section headed Development of performance-related components.

STI strategic multiplier

In addition to the financial and non-financial performance criteria (ESG targets), the Supervisory Board sets criteria for the Management Board for the financial year, whose achievement determines the strategic multiplier in a range of 0.8 to 1.2 (80% to 120%). The criteria address specific objectives of initiatives that the Executive Board and Supervisory Board consider particularly relevant to MTU's strategic development.

Example topics for the selection of criteria for the strategic multiplier:

Establishment and development of business relationships with strategic business partners (customers, suppliers, development partners, etc.)	Further development of technology, production and location strategies	Further development and introduction of (digital) solutions	Organizational and cultural change

An explanation of the performance criteria selected for the reporting year in the context of the strategic multiplier can be found in the following section headed Development of performance-related components.

Performance Share Plan (PSP) / Long term incentive (LTI)

The Performance Share Plan (PSP/LTI) with a four-year assessment period (performance period) is granted for each fiscal year as performance-related compensation with a long-term incentive effect. It amounts to around 60% of the Executive Board's target performance-related direct compensation and is intended to reward the achievement of medium- and long-term targets that are of particular importance to the development of MTU's enterprise value.

The compensation component is granted to the members of the Executive Board in the form of conditionally allocated virtual shares (performance shares) for each fiscal year in the amount of the target amount defined individually in the Executive Board employment contract. The number of conditionally allocated virtual shares (performance shares) is calculated from their fair value and the respective contractual target amount for the PSP/LTI at the grant date. The Performance Share Plan (PSP/LTI) is paid out based on the extent to which the target values set for it by the Supervisory Board for the financial performance criteria and the non-financial performance criteria (ESG targets) are achieved.

The Supervisory Board determines the weighting and the target value, minimum value and maximum value for the specific financial performance criteria and non-financial performance criteria (ESG targets) no later than the beginning of the fiscal year in question. After the end of the fiscal year, the value actually achieved for each financial performance criterion and non-financial performance criterion (ESG targets) is compared with the target value previously set.

The target achievement is 0% if the result realized is below the minimum value set by the Supervisory Board for the respective financial performance criterion and non-financial performance criterion (ESG targets). If the minimum value is not reached, no payment is made for the criterion in question. When the minimum value is reached, the payout ratio corresponding to the target achievement is 50% for the criterion in question. When the target value set is reached, the payout ratio corresponding to the target achievement is 100% for the criterion in question. If the maximum value set is reached or exceeded, the payout ratio corresponding to the target achievement is 200% for the criterion in question. Between these three defined points, linear interpolation is applied. The PSP/LTI overall target achievement level is calculated as the arithmetic mean of the weighted payout ratios for the financial and non-financial performance criteria determined for the assessment period (performance period).

Depending on the extent to which the target values of the financial and non-financial performance criteria set by the Supervisory Board for the PSP/LTI are achieved within the four-year assessment period (performance period), the number of virtual shares (performance shares) conditionally allocated for the fiscal year is modified, and a maximum of 200% of the originally granted number of virtual shares (performance shares) is achieved. After the end of the assessment period (performance period), the respective payout amount of the PSP/LTI granted for the reporting year is calculated by multiplying the number of virtual shares finally allocated by the sum of the average MTU share price in the 60 trading days prior to the end of the assessment period (performance period) and the dividend payments per share made during the assessment period (performance period). After deduction of the relevant taxes, the resulting PSP/LTI payout amount is paid out to the individuals in question as a cash payment in the following year, taking into account the cap of 250% of the respective contractual target amount for the PSP/LTI at the grant date (PSP/LTI cap).

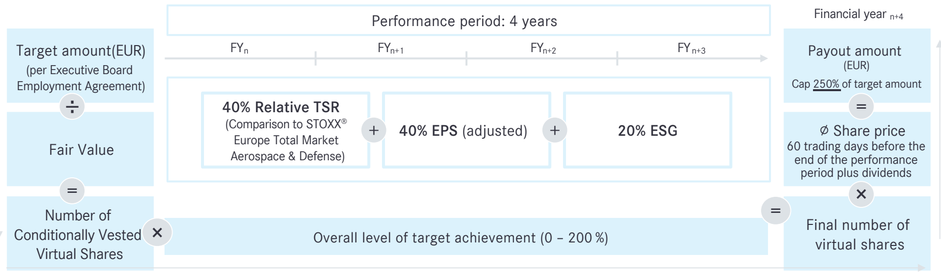
When calculating the target achievement of the financial and non-financial performance criteria, the Supervisory Board must, at its due discretion and in justified special circumstances, take into account exceptionally positive and negative developments that have no specific connection to the Executive Board's performance. Only significant business changes that are not taken into account conceptually in the objectives can be considered as exceptional developments. Generally unfavorable market developments explicitly do not constitute exceptional developments. For the reporting year, the Supervisory Board did not identify any justified special circumstances that gave it cause to adjust the target achievement of the PSP/LTI criteria at its due discretion relative to the methodological requirements of the compensation system.

The individual PSP/LTI target amount per Executive Board member, the corresponding number of provisionally allocated virtual shares (performance shares), and the target values set by the Supervisory Board for the financial performance criteria and non-financial performance criteria (ESG targets) are presented below.

Financial and non-financial performance criteria of the Performance Share Plan (PSP/LTI)
For the reporting year, the Supervisory Board defined the following financial and non-financial performance criteria with their corresponding weighting in the context of the overall target achievement:

/ relative TSR (rTSR) – 40% (financial performance criterion)
/ earnings per share (EPS) (adjusted) – 40% (financial performance criterion)
/ ESG targets – 20% (non-financial performance criterion).

Performance Share Plan (PSP)



Relative TSR (rTSR) – financial performance criterion
Relative total shareholder return (rTSR) is recognized as an external performance criterion geared to the capital market. It focuses on a relative measurement of MTU share performance against listed companies from the same industry environment and thus the direct alignment of the PSP/LTI with the interests of MTU shareholders. This rewards long-term and sustainable outperformance by the MTU share compared with relevant companies from the same industry environment.

The relative TSR (rTSR) compares MTU's TSR performance with the TSR performance of the companies in the STOXX® Europe Total Market Aerospace & Defense based on the percentile ranking method. In the context of the PSP/LTI, the relative TSR (rTSR) is therefore defined as the ranking of MTU's TSR performance compared to the TSR performance of the companies in the STOXX® Europe Total Market Aerospace & Defense Index. In order to determine the relative TSR target achievement, the TSR performance of the MTU share during the performance period is determined and the TSR performance of the companies of the STOXX® Europe Total Market Aerospace & Defense (benchmark index) is compared. MTU's TSR performance is the share price performance plus notionally reinvested gross dividends. In a similar way to how MTU's TSR performance is determined, the TSR performance of each company in the benchmark index (STOXX® Europe Total Market Aerospace & Defense) is determined and ranked on this basis. The average value of the 60 trading days before the respective reference date – start and end of the assessment period (performance period) – is used for the relative TSR start value and end value.

In the event that the selected benchmark index is significantly restructured, adjusted or discontinued during the performance period, MTU's Supervisory Board reserves the right to select an alternative benchmark index at its reasonable discretion and, if necessary, to calibrate the target achievement curve. No such developments relating to the benchmark index had to be taken into account for the reporting year.

Earnings per share (EPS) (adjusted) – financial performance criterion
Adjusted earnings per share (adjusted EPS) do not fall under the regulation of the International Financial Reporting Standards (IFRS) and are explicitly regarded as a supplement to the key figures reported in accordance with IFRS and is calculated as follows:

Earnings per share (EPS) (adjusted) are calculated in accordance with the (IFRS-)regulated calculation of basic earnings per share, but taking into account adjusted net income instead of IFRS net income.

The starting point for deriving adjusted net income is the financial performance criterion of adjusted earnings before interest and taxes (adjusted EBIT) described in the STI. Firstly, the adjusted earnings before income taxes is derived from this by adding the net interest income and the interest portion of the other financial income/expense to the adjusted EBIT. None of the other components of financial income/expense, especially those that are influenced by the U.S. dollar exchange rate, such as the effects of exchange-rate hedging, are taken into account here. Adjusted net income is in turn calculated on the basis of adjusted earnings before income taxes by reducing it by the "normalized" taxes on income. The "normalized" taxes are derived from the average Group tax rate of 27% (previous year: 26%) determined as part of the Group's operational planning. The after-tax earnings contributions from companies accounted for using the equity method included in the adjusted net profit before income taxes are not part of the tax base.

Background information and quantified details on the reconciliation to adjusted net income can be found in the management report in the section headed Economic report / Results of operations / Reconciliation to adjusted key financial performance figures – Results of operations.

The target value for the adjusted earnings per share (EPS [adjusted]) set by the Supervisory Board for the reporting period is the arithmetic mean of the adjusted earnings per share (EPS [adjusted]) derived from the Group's operational planning for the grant year of the PSP/LTI tranche and the three subsequent years. The target achievement for EPS (adjusted) is correspondingly calculated as the arithmetic mean of the realized adjusted EPS figures determined during the four-year assessment period (performance period) on the basis of the external, audited financial reporting compared to the defined target value.

ESG targets – non-financial performance criterion
The ESG performance criteria are defined by the Supervisory Board for each fiscal year, taking into account MTU's sustainability strategy. To this end, the Supervisory Board selects up to three non-financial performance criteria (ESG targets) and defines quantifiable target values to be achieved within the PSP/LTI assessment period (performance period). The inclusion of ESG targets in the PSP/LTI underscores the ambition of the company's management and Supervisory Board to achieve sustainable business development that takes appropriate account of the interests of all ESG stakeholders and thus boosts the MTU Group's future viability.

List of ESG criteria

Environmental management	Social commitment	Compliance	Growth & resilience	Product responsibility & quality
Innovation	Employer attractiveness	Employees & diversity	Responsible procurement	Digital

An explanation of the non-financial performance criteria selected for the reporting year can be found in the following *section headed Development of performance-related components*.

Additional, performance-related compensation in special exceptional circumstances

Under the approved compensation system, the Supervisory Board was authorized to grant the Executive Board an additional, performance-related compensation in special exceptional circumstances in order to compensate for exceptional challenges that cannot be reflected in other short-term or long-term performance-related compensation or whose management regularly comes into direct conflict with it.

In the exceptional cases, the criteria, the relevant targets and the relevant assessment period (performance period) would always be determined in advance by the Supervisory Board.

The amount of the additional, performance-related compensation in special exceptional circumstances granted (as compensation) cases must be determined by the Supervisory Board, at its reasonable discretion, for the specific individual case. It can never exceed 80% of the respective contractual base compensation at the time it is granted, even in the case of a multi-year assessment period (performance period). Equally, any payout would be counted in full toward the respective maximum compensation for the fiscal year.

An explanation of the additional, performance-related compensation in special exceptional circumstances granted as compensation by the Supervisory Board for the reporting year, the underlying criteria, the associated objectives, and the determination of the level of target achievement can be found in the following *section headed Development of performance-related components*.

In its meeting on December 9, 2024, the Supervisory Board unanimously decided that it would no longer make use of the authorization in the approved compensation system to grant additional, performance-related compensation in special exceptional circumstances from the 2025 fiscal year onwards. The Supervisory Board passed this resolution in order to effectively address the criticism of the approved compensation system that shareholders expressed in this regard, which it identifies as the cause of the relatively low level of approval at the Annual General Meeting. The authorization is being relinquished, even though the Supervisory Board considers granting this additional performance-related component to be appropriate and legitimate in specific individual cases in order to achieve competitive compensation for the members of the Executive Board in a cross-comparison within the DAX stock market segment relevant to MTU. This resolution is a response to feedback from investors and shareholders, and the Supervisory Board considers the compensation system to have been effectively adjusted in this regard.

Further rules on compensation

Pension arrangements

All Executive Board members appointed prior to fiscal year 2021 receive contributions under direct defined benefit pension commitments. The structure of these commitments is outlined below in the *section headed Rules when terminating the contracts of members of the Executive Board*. Instead of such direct defined benefit commitments, Executive Board members appointed for the first time after January 1, 2021 receive an annual, earmarked contribution for their own pension provision.

Malus and clawback clauses

Further, the compensation system for the Executive Board contains malus and claw-back rules. This enables the Supervisory Board, at its discretion, to reduce performance-related components that have not been paid out (malus clause) or claim reimbursement of performance-related components that have already been paid (clawback clause). The regulations for malus or clawback are to be applied in the event of serious breaches – e.g., of the Code of Conduct or compliance guidelines. Moreover, the rules serve to retroactively correct the measurement of performance-related compensation components that have already been determined and paid out if this was based on incorrect consolidated financial statements and the corresponding corrected consolidated financial statements would have resulted in a lower amount being paid out.

Share ownership guidelines

The share ownership guidelines require the CEO and the other members of the Executive Board to acquire shares in MTU equivalent to 200% (CEO) and 100% (other Executive Board members) of their respective base compensation within a transitional period (grace period) of four years from the date of their initial appointment. All Executive Board members fulfilled this individual obligation in the reporting period. The shares held in compliance with the share ownership guidelines are subject to a two-year lock-up period when a member leaves the Executive Board.

Departure from the defined compensation system in the interests of MTU's well-being
Under Section 87a (2) sentence 2 of the German Stock Corporation Act (AktG), in special and exceptional circumstances (e.g., in the event of a serious financial or economic crisis), the Supervisory Board may temporarily depart from the defined compensation system if this is in the long-term interests of MTU. In this context, generally unfavorable market developments are explicitly not considered special and exceptional circumstances permitting temporary departure from the compensation system. Departure from the compensation system is only possible on the basis of a corresponding resolution by the Supervisory Board, based on a proposal by the Personnel Committee, after careful examination of its necessity. Even in such cases, the compensation must still be geared to the long-term and sustainable development of MTU and reflect the success of the company and the performance of the Executive Board.

Maximum compensation
In accordance with Section 87a (1) sentence 2 no. 1 of the German Stock Corporation Act (AktG), the Supervisory Board has set a maximum level of compensation for each member of the Executive Board. This comprises all fixed and variable components (fixed compensation, fringe benefits, pension arrangements, performance-related compensation). The maximum compensation caps the total compensation granted for a given fiscal year, regardless of the relevant payout date. It amounts to €8.5 million for the CEO and €5.0 million for the other Executive Board members.

The arrangement takes into account the stipulation that this limitation be kept stable over several years and, in the opinion of the Supervisory Board, explicitly implies no reference to the target compensation level. When measuring the maximum remuneration, the Supervisory Board had to take into account the structural compatibility with common practice in a cross-comparison with the DAX stock market segment relevant for MTU, taking into account a continuing possibility of actuarial peak effects from the existing direct pension commitments (https://www.mtu.de/fileadmin/EN/5_Investor_Relations/9_1_Annual_General_Meeting/2024_AGM_A_04_Top_8__further_info_remuneration_system_MTU.pdf).

Development of performance-related components

Short-term incentive (STI)

Target achievement for STI

	Weighting	Minimum value (50% target achievement)	Target value (100% target achievement)	Maximum value (200% target achievement)	Actual value	Payout ratio for target achievement
Financial performance criteria						
EBIT (adjusted)	50 %	€720 million	€900 million	€1,035 million	€1050 million	200.00%
Free cash flow (adjusted)	30 %	€50 million	€110 million	€155 million	€183 million	200.00%
Non-financial performance criteria						
CO_2 abatement through sustainable measures	(10 %)	4.30 kt CO_2	5.40 kt CO_2	6.20 kt CO_2	5.82 kt CO_2	(152,50 %)
Training days per employee	(10 %)	2.25 days	3.00 days	3.60 days	3.38 days	(163,33 %)
ESG targets	20 %					157.92%
Weighted overall target achievement						**191.58%**
Strategic multiplier		0.80	1.00	1.20	1.20	1.20
STI payout ratio						**229.90%**

Financial performance criteria of the short-term incentive (STI)
A target value (payout ratio 100%) of €900 million, a minimum value (payout ratio 50%) of €720 million and a maximum value (payout ratio 200%) of €1,035 million were set for the EBIT (adjusted) financial STI performance criterion. In the reporting year (assessment period / performance period), the maximum value was exceeded at a realized EBIT (adjusted) of €1,050 million, which means a payout ratio of 200% for this financial performance criterion. In accordance with the

defined weighting of the financial and non-financial STI performance criteria, the payout ratio of the EBIT (adjusted) criterion is incorporated in the weighted overall STI target achievement at a share of 50%.

A target value (payout ratio 100%) of €110 million, a minimum value (payout ratio 50%) of €50 million and a maximum value (payout ratio 200%) of €155 million were set for the reporting year for the free cash flow (adjusted) financial STI performance criterion. In the reporting year (assessment period / performance period), the maximum value was exceeded at a realized free cash flow (adjusted) of €183 million, which means a payout ratio of 200% for this financial performance criterion. In accordance with the defined weighting of the financial and non-financial STI performance criteria, the payout ratio of the free cash flow (adjusted) criterion is incorporated in the weighted overall STI target achievement at a share of 30%.

Non-financial performance criteria – ESG targets – of the short-term incentive (STI)
"Two equally weighted, non-financial STI performance criteria (ESG targets) were defined as ESG targets for the reporting year: the 'CO_2 abatement through sustainable measures' criterion from the area of environmental management and the 'training days per employee' criterion from the areas of employer attractiveness and employees & diversity.

The 'CO_2 abatement through sustainable measures' criterion expresses the CO_2 reduction in connection with sustainably realized energy efficiency (use of heat pumps, etc.) or climate-neutral substitution of existing energy requirements (use of photovoltaic systems, etc.) in relation to the equivalent reference value for 2019. The Supervisory Board selected the criterion to give a targeted boost to MTU's "ecoRoadmap" climate protection strategy, which aims to achieve climate-neutral production and maintenance at MTU, thus helping to achieve the targets of the Paris Climate Agreement. The criterion accordingly takes into account all major production and maintenance facilities controlled by MTU (sites: Munich, Hanover, Ludwigsfelde, Rzeszów, Vancouver and Nova Pazova). In light of the time-consuming collection, assessment and quality assurance of extensive, decentralized reporting data, the target achievement for the 'CO_2 abatement through sustainable measures' criterion is measured for a 12-month assessment period (performance period) between December 1, 2023 and November 30, 2024 (which differs from the reporting year), based on the emission factors from the reference year 2019 – the year when MTU's "ecoRoadmap" climate protection strategy was introduced.

A target value (payout ratio 100%) of 5.40 metric kilotons, a minimum value (payout ratio 50%) of 4.30 metric kilotons and a maximum value (payout ratio 200%) of 6.20 metric kilotons were set for the reporting year for the 'CO_2 abatement through sustainable measures' non-financial STI performance criterion. For the reporting year (assessment period / performance period of December 1, 2023–November 30, 2024), the target value was exceeded with realized 'CO_2 abatement through sustainable measures' of 5.82 metric kilotons, which, on the basis of linear interpolation, means a payout ratio of 152.50% for this non-financial performance criterion. "In accordance with the defined weighting of the financial and non-financial STI performance criteria, the payout ratio of the 'CO_2 abatement through sustainability measures' criterion is incorporated in the weighted overall STI target achievement at a calculated share of 10% (weighting of ESG targets: 20%). (ESRS E1-13)"[3]

The "training days per employee" criterion expresses the average duration of training achieved per employee at the German MTU sites (Munich, Hanover, Ludwigsfelde). The Supervisory Board selected the criterion to give a targeted boost to the strategic, forward-looking focus on proactive learning and individual development – as it considers learning and training to be a prerequisite for the recruitment and retention of employees who realize their potential and put their ideas into practice. This will further deepen and anchor the established leadership values of "we transform", "we empower" and "we create trust" by giving the employee development process a central management focus. Integrating ambitious employee development in a period characterized by business growth and limited human resources must be recognized as a complex challenge. In light of the time-consuming collection, classification and quality assurance of extensive, decentralized reporting data, the target achievement for the "training days per employee" criterion is measured for an assessment period (performance period) between January 1, 2024 and December 6, 2024 (which differs from the reporting year).

A target value (payout ratio 100%) of 3 days, a minimum value (payout ratio 50%) of 2.25 days and a maximum value (payout ratio 200%) of 3.60 days were set for the reporting year for the "training days per employee" non-financial STI performance criterion. For the reporting year (assessment period / performance period of December 1, 2023–November 30, 2024), the target value was exceeded at a realized 3.38 "training days per employee", which, on the basis of linear interpolation, means a payout ratio of 163.33% for this non-financial performance criterion. In accordance with the defined weighting of the financial and non-financial STI performance criteria, the payout ratio of the "training days per employee" criterion is incorporated in the weighted overall STI target achievement at a calculated share of 10% (weighting of ESG targets: 20%).

The target achievement of the equally weighted non-financial performance criteria (ESG targets) "CO_2 abatement through sustainable measures" of 152.50% and "training days per employee" of

[3] This disclosure is part of MTU Aero Engines AG's Group Sustainability Statement for fiscal year 2024.

163.33% results in an arithmetic mean of 157.92%, which, taking into account the weighting of the ESG targets, is incorporated in the weighted STI overall target achievement at 20%. (ESRS 2 GOV-3 29a, 29b, 29c)"[4]

Weighted overall target achievement of the short-term incentive (STI)

Taking into account the target achievement of the financial and non-financial STI performance criteria defined for the reporting year and their weighting, the weighted overall STI target achievement is 191.58%.

Short-term incentive (STI) strategic multiplier

In addition to the financial and non-financial STI performance criteria described, the Supervisory Board has defined five additional criteria, achievement of which scales the STI strategic multiplier from 0.8 to 1.2.

The strategic multiplier criteria defined for the reporting year and the Supervisory Board's assessment of their achievement are described below:

Criteria – strategic multiplier	Determination of target achievement	Strategic multiplier contribution
STI strategic multiplier base amount		0.80
1. A concept to further reduce customer concentration risks in the commercial OEM and MRO business has been developed and adopted by the Executive Board in consultation with the Supervisory Board.	The Supervisory Board considers the above criterion to have been fully met in the reporting year. In fiscal year 2024, concepts targeted with the criterion were developed in detail to the point where they were ready for implementation, and relevant parts of them have already been fixed through contractual agreements with several engine OEMs to expand cooperation in the commercial and military OEM and commercial MRO business.	+ 0.08
2. A concept for how to map significantly increasing capacity requirements for the commercial and military OEM business in the MTU production network has been developed and adopted by the Executive Board in consultation with the Supervisory Board.	The Supervisory Board considers the above criterion to have been fully met in the reporting year. In fiscal year 2024, the concepts targeted with the criterion were developed in detail to the point where they were ready for implementation. Key components include a "Global Footprint Production" simulation model, which forms the basis for future production network planning, and optimized functional and process concepts for the production and assembly of key engine components.	+ 0.08
3. A successful strategic partnership has been established with at least one supplier to expand the supplier portfolio for highly complex engine parts.	The Supervisory Board considers the above criterion to have been fully met in the reporting year. In fiscal year 2024, the strategic partnerships with suppliers targeted with the criterion were initiated and established. In this context, development partnerships were formalized with suppliers, qualification plans were defined and series production volumes were agreed at competitive prices.	+ 0.08
4. The decision on continuing the Flying Fuel Cell technology and product development has been made. In case of continuation of the work, a corresponding financing and partnership concept has been developed and adopted by the Executive Board in consultation with the Supervisory Board.	The Supervisory Board considers the above criterion to have been fully met in the reporting year. In fiscal year 2024, the decision was made to continue the work on the Flying Fuel Cell technology, as targeted by the criterion, and the concepts for the financing and the technology partnership required in this context were developed. In the reporting year, milestones were reached in the development of MTU Flying Fuel Cell technology and, on this basis, the technology roadmap and the necessary financing through third-party funds were specified and initiated.	+ 0.08

[4] This disclosure is part of MTU Aero Engines AG's Group Sustainability Statement for fiscal year 2024.

Criteria – strategic multiplier	Determination of target achievement	Strategic multiplier contribution
5. The content and implementation of a joint venture with Safran Helicopter Engines for a future European helicopter engine program has been finalized.	The Supervisory Board considers the above criterion to have been fully met in the reporting year. In fiscal year 2024, the Executive Board was able to develop and contractually formalize the cooperation with Safran Helicopter Engines that is targeted with the criterion in order to establish a future European helicopter engine program. The joint venture established under this framework is based in France and its governing bodies are staffed by experienced managers with extensive industry expertise. On this basis, the joint venture between Safran and MTU aims to convince the national government clients to cooperate on a further European joint project in the form of a future European helicopter engine program.	+ 0.08
STI strategic multiplier determined		1.20

Overall, the Supervisory Board was able to determine that the targets for all five defined criteria had been achieved and thus that the STI strategic multiplier was 1.2.

Short-term incentive (STI) payout ratio

Taking into account the weighted overall STI target achievement of 191.58% and the strategic multiplier determined of 1.2, this results in an STI payout ratio of 229.90%.

Performance Share Plan (PSP) / Long term incentive (LTI)

Target achievement PSP/LTI

	Weighting	Minimum value (0% or 50% target achievement)	Target value (100% target achievement)	Maximum value (200% target achievement)
Financial performance criteria				
Relative total shareholder return (rTSR)	40%	25th percentile [1]	50th percentile	75th percentile
Earnings per share (EPS) (adjusted)	40%	11,58 € [2]	14,48 €	16,65 €
ESG performance criteria				
Remaining CO_2 emissions	(10%)	0,0% [2]	9,8%	17,2%
Women in leadership	(10%)	14,0% [2]	16,0%	18,0%
ESG targets	20%			

[1] When the minimum value is reached, the target achievement is 0%.
[2] When the minimum value is reached, the target achievement is 50%.

As of January 1, 2024, the members of the Executive Board were conditionally allocated virtual shares (performance shares) under the Performance Share Plan (PSP/LTI) in accordance with their respective contractual PSP/LTI target direct compensation component and the grant date fair value of €166.34 per virtual share (performance share).

Depending on the extent to which the target values of the financial and non-financial performance criteria set by the Supervisory Board for the PSP/LTI are achieved within the four-year assessment period (performance period), the number of virtual shares (performance shares) conditionally allocated for the fiscal year is modified, and a maximum of 200% of the originally granted number of virtual shares (performance shares) is achieved. After the end of the assessment period (performance period), the respective payout amount of the PSP/LTI granted for the reporting year is calculated by multiplying the number of virtual shares finally allocated (PSP/LTI overall target achievement) by the sum of the average MTU share price in the 60 trading days prior to the end of the assessment period (performance period) and the dividend payments per share made during the assessment period (performance period). After deduction of the relevant taxes, the resulting PSP/LTI payout amount is paid out to the individual Executive Board member as a cash payment in the following year, taking into account the cap of 250% of the respective contractual target amount for the PSP/LTI at the grant date (PSP/LTI cap).

The following table shows the virtual shares (performance shares) conditionally allocated in fiscal year 2024:

LTI tranche 2024

	Target amount in €	Grant date fair value in €	Number of provisionally allocated virtual shares	Maximum number of possible performance shares (target achievement max. 200 %)	Maximum possible payout amount (250% of target amount) in €
Lars Wagner	1,392,000	166.34	8,369	16,738	3,480,000
Peter Kameritsch	684,000	166.34	4,113	8,226	1,710,000
Dr. Silke Maurer	684,000	166.34	4,113	8,226	1,710,000
Michael Schreyögg	684,000	166.34	4,113	8,226	1,710,000
Total	**3,444,000**	**166.34**	**20,708**	**41,416**	**8,610,000**

Further information on the development of the fair value of performance shares granted in the reporting year under the PSP/LTI can be found in the Notes to the Consolidated Financial Statements in *section 27. Other provisions*.

Financial performance criteria of the Performance Share Plan (PSP/LTI)

For the financial performance criterion of relative TSR (rTSR – MTU's percentile ranking compared with the TSR performance of the companies in the STOXX® Europe Total Market Aerospace & Defense Index), the target value for the LTI/PSP tranche granted in the reporting year (payout ratio of 100%) was set at the 50th percentile, the minimum value (payout ratio 0%) at the 25th percentile and the maximum value (payout ratio 200%) at the 75th percentile. The Supervisory Board set the target, minimum and maximum values after careful consideration of the various practices in place internationally, with the aim of ensuring that the compensation of the members of the Executive Board is competitive, in particular in comparison with the relevant practices on the DAX, the stock exchange segment relevant to MTU (*www.mtu.de/fileadmin/EN/5_Investor_Relations/9_1_Annual_General_Meeting/2024_AGM_A_04_Top_8__further_info_remuneration_system_MTU.pdf*).

In accordance with the defined weighting of the financial and non-financial STI performance criteria, the payout ratio of the rTSR criterion is incorporated in the weighted overall PSI/LTI target achievement at a share of 40%.

A target value (payout ratio 100%) of €14.48/share, a minimum value (payout ratio 50%) of €11.58/share and a maximum value (payout ratio 200%) of €16.65/share were set for the reporting year for the EPS (adjusted) financial PSP/LTI performance criterion. In accordance with the defined weighting of the financial and non-financial STI performance criteria, the payout ratio of the EPS (adjusted) criterion is incorporated in the weighted overall PSP/LTI target achievement at a share of 40%.

Non-financial performance criteria – ESG targets – of the Performance Share Plan (PSP/LTI)

"Two equally weighted, non-financial PSP/LTI performance criteria (ESG targets) were defined as ESG targets for the reporting year: the 'remaining CO_2 emissions' criterion from the area of environmental management and the 'women in leadership' criterion from the area of employees & diversity.

The 'remaining CO_2 emissions' criterion expresses the Scope 1 and 2 residual CO_2 emissions from MTU's production and maintenance activities targeted at the end of the four-year PSP/LTI assessment period (performance period) for 2027. The Supervisory Board selected the criterion to give a targeted boost to MTU's "ecoRoadmap" climate protection strategy, which aims to achieve climate-neutral production and maintenance at MTU, thus helping to achieve the targets of the Paris Climate Agreement, taking into account the requirements of the Science Based Targets initiative (SBTi). The criterion accordingly takes into account all major production and maintenance facilities controlled by MTU (sites: Munich, Hanover, Ludwigsfelde, Rzeszów, Vancouver and Nova Pazova). In light of the time-consuming collection, assessment and quality assurance of extensive, decentralized reporting data, the target achievement for the 'remaining CO_2 emissions' criterion is measured for the four-year assessment period (performance period) by comparing the remaining emissions between December 1, 2023 and November 30, 2024 (reference period) and those between December 1, 2026 and November 30, 2027 (target period) on the basis of emission factors from the reporting year (2024).

A target value (payout ratio 100%) of 45.30 metric kilotons (9.8%), a minimum value (payout ratio 50%) of 50.20 metric kilotons (0%) and a maximum value (payout ratio 200%) of 41.60 metric kilotons (17.2%) were set for the reporting year for the 'remaining CO_2 emissions' non-financial PSP/LTI performance criterion for the reduction of remaining CO_2 emissions in the target period (December 1, 2026– November 30, 2027) compared with the reference period (December 1, 2023– November 30, 2024). The definition of minimum, target and maximum values expresses the ambition of not exceeding the base value from 2024 despite significant business growth.

"In accordance with the defined weighting of the financial and non-financial PSP/LTI performance criteria, the payout ratio of the 'remaining CO_2 emissions' criterion is incorporated in the weighted overall PSP/LTI target achievement at a calculated share of 10% (weighting of ESG targets: 20%). (ESRS E1-13)"[5]

The "women in leadership" criterion expresses the relative proportion of female managers targeted at the German MTU sites (Munich, Hanover, Ludwigsfelde) at the end of the four-year PSP/LTI assessment period (performance period). The Supervisory Board selected the criterion to give a targeted boost to gender equality in a professional context and thus to promoting equal opportunities.

A target value (payout ratio 100%) of 16.0%, a minimum value (payout ratio 50%) of 14.0% and a maximum value (payout ratio 200%) of 18.0% were set for the reporting year for the "women in leadership" non-financial PSP/LTI performance criterion. The definition of minimum, target and maximum values expresses the ambition of bringing the proportion of female managers in line with the relative proportion of female employees within the assessment period (performance period).

In accordance with the defined weighting of the financial and non-financial PSP/LTI performance criteria, the payout ratio of the "women in leadership" criterion is incorporated in the weighted overall PSP/LTI target achievement at a calculated share of 10% (weighting of ESG targets: 20%). (ESRS 2 GOV-3 29a, 29b, 29c)"[6]

Weighted overall target achievement for the Performance Share Plan (PSP/LTI)

The PSP/LTI performance-related compensation component granted for the reporting year will be paid out as planned after the level of target achievement for the four-year PSP/LTI assessment period (performance period) has been determined in 2028.

Further information on the development of obligations in connection with performance shares granted under the PSP/LTI in the reporting year can be found in the Notes to the Consolidated Financial Statements in section 27. Other provisions.

Additional, performance-related component in special exceptional circumstances

In the reporting year, the Supervisory Board granted additional, performance-related compensation in special exceptional circumstances for specific reasons relating to the GTF™-fleet management plan. The underlying objectives (criteria) focus on reducing the resulting operational and financial burdens and further developing the resilience of MTU's business model.

An amount of €200,000 per defined criterion for the CEO and €100,000 per ordinary member of the Executive Board was agreed in the assessment of the additional, performance-related compensation in special exceptional circumstances. The selected valuation takes into account the fact that the multi-year GTF™ fleet management plan, which was set up in 2023, will have a significant negative impact on MTU's opportunity/risk profile and thus on the STI performance-related compensation component. Due to the importance and urgency of the defined objectives, the reporting year was defined as the assessment period (performance period).

[5] This disclosure is part of MTU Aero Engines AG's Group Sustainability Statement for fiscal year 2024.

[6] This disclosure is part of MTU Aero Engines AG's Group Sustainability Statement for fiscal year 2024.

The defined criteria for the additional, performance-related compensation in special exceptional circumstances granted and the Supervisory Board's assessment of their degree of achievement are described below:

Criteria of the additional, performance-related compensation granted considering special exceptional circumstances	Determination of target achievement
1. The average throughput time of PW1100G-JM shop visits was significantly reduced in the reporting year compared with the previous year, and additional MRO capacity was created accordingly.	The Supervisory Board considers the criterion to have been fully met in the reporting year. The concepts targeted under the criterion to improve the range of qualifications and flexibility of staff capacities, the shop floor layout, and bottleneck management were developed in fiscal year 2024. By implementing key aspects of these concepts, the largest MTU MRO site, Hanover, was able to reduce the throughput times of PW1100G-JM shop visits by more than 20% in 2024 compared to the previous year. This significantly improved MTU's operational and financial risk position in the reporting year.
2. Worldwide MTU MRO network capacity for the PW1100G-JM is being significantly increased compared with 2023.	The Supervisory Board considers the criterion to have been fully met in the reporting year. In fiscal year 2024, the concepts targeted under the criterion to increase MTU network capacity were largely implemented, resulting in an increase of more than 65% compared with the previous year. These concepts include the industrialization of best-practice MRO processes and, in particular, significant investments in the expansion of relevant personnel, machine and test stand capacities at the Hanover, Rzeszów (EME) and Zhuhai sites. This significantly improved MTU's operational and financial risk position in the reporting year.
3. The number of PW1100G-JM new engine deliveries (production engines) is being significantly increased compared with 2023.	The Supervisory Board considers the criterion to have been fully met in the reporting year. In fiscal year 2024, the concepts targeted under the criterion to significantly increase PW1100G-JM new engine deliveries were largely implemented, resulting in an increase of more than 15% compared with the previous year. These concepts include the optimization of material management, production processes and assembly processes, and an increase in staff flexibility. The increase in deliveries of new engines will facilitate the uninterrupted operation of the A320neo fleet, which is negatively affected by the GTF fleet management plan. This significantly improved MTU's operational and financial risk position in the reporting year.
4. Additional contractual agreements grant extended access to program information. Furthermore, measures have been taken to secure the financing of the resources and capacities to be contributed to the program workshares.	The Supervisory Board considers the criterion to have been fully met in the reporting year. In fiscal year 2024, the contractual agreements targeted under the criterion were successfully concluded and implemented. This enabled significant measures to be taken to expand service provision and improve the financial security of the resources and capacities to be contributed to MTU program workshares. This significantly improved MTU's operational and financial risk position in the reporting year.

In the reporting year, the Supervisory Board decided that it would no longer make use of the authorization in the compensation system to grant additional, performance-related compensation in special exceptional circumstances from the 2025 fiscal year onwards. With its resolution, the Supervisory Board considers the compensation system to have been adjusted appropriately and effectively (further information can be found in the section headed Compensation components and structure / Performance-related components / Additional, performance-related compensation in special exceptional circumstances).

Compensation of individual members of the Executive Board

Compensation for the reporting period

The members of the Executive Board were granted the following total target compensation for the reporting year; the performance-related compensation components were initially based on theoretical target achievement of 100%.

Further information on the development of target compensation can be found in the *section Vertical comparison*.

Total target compensation

Members of the Executive Board	Lars Wagner Chief Executive Officer		Peter Kameritsch Chief Financial Officer and Chief Information Officer		Dr. Silke Maurer Chief Operating Officer [1]		Michael Schreyögg Chief Program Officer	
in €	2024	2023	2024	2023	2024	2023	2024	2023
Fixed compensation	1,100,004	999,996	660,000	600,000	660,000	600,000	660,000	600,000
Pension allowance [2]					200,000	200,000		
Fringe benefits	39,479	36,386	9,595	9,863	10,347	16,001	29,911	26,826
Total non-performance-related compensation	**1,139,483**	**1,036,382**	**669,595**	**609,863**	**870,347**	**816,001**	**689,911**	**626,826**
Proportion of non-performance-related compensation in %	**24%**	**21%**	**28%**	**32%**	**36%**	**48%**	**29%**	**32%**
STI	928,000	750,000	456,000	360,000	456,000	360,000	456,000	360,000
LTI (2024: PSP | 2023: RSP)	1,392,000	1,100,000	684,000	540,000	684,000	540,000	684,000	540,000
Additional ad hoc performance-related compensation in special exceptional cases [3]	800,000	-	400,000	-	400,000	-	400,000	-
Total performance-related compensation	**3,120,000**	**1,850,000**	**1,540,000**	**900,000**	**1,540,000**	**900,000**	**1,540,000**	**900,000**
Proportion of performance-related compensation in %	**64%**	**37%**	**64%**	**47%**	**64%**	**52%**	**64%**	**45%**
Pension expenses (IAS 19) [4]	588,570	2,159,675 [5]	200,267	392,549			185,617	456,207
Proportion of pension expenses in %	**12%**	**43%**	**8%**	**21%**			**8%**	**23%**
Total target compensation	**4,848,053**	**5,046,057**	**2,409,862**	**1,902,412**	**2,410,347**	**1,716,001**	**2,415,528**	**1,983,033**

[1] Executive Board member since February 1, 2023. For comparison: prior year values on a full year basis.
[2] A defined benefit commitment is granted to Executive Board members who were appointed for the first time before the 2021 financial year.
[3] Resolution by the Supervisory Board in the reporting year: Waiving the ability to grant this performance-related component from the 2025 financial year onwards - further explanations in the section headed Compensation components and structure/ Performance-related components/ Additional, performance-related compensation in special exceptional circumstances.
[4] In fiscal year 2023, the IFRS pension expenses (IAS 19) were influenced by past service costs in connection with the adjustment of the basic compensation as of January 1, 2024, which determines the respective pension commitment.
[5] In fiscal year 2023, the IFRS pension expenses (IAS 19) were influenced by past service costs in connection with the adjustment of the basic compensation due to appointment as CEO effective January 1, 2023.

Compensation granted and owed

The following table contains an individual breakdown of the compensation of each Executive Board member for the reporting period. The non-performance-related compensation is reported as compensation granted and corresponds to the amounts paid in the reporting period. The performance-related compensation is reported as compensation granted and owed, and thus corresponds to the amounts to be received in the following year for the reporting year.

The long-term PSP/LTI performance-related remuneration granted in the reporting year will be reported in the compensation report for fiscal year 2027 due to its four-year assessment period (performance period).

Total compensation granted and owed

Members of the Executive Board	**Lars Wagner** Chief Executive Officer		**Peter Kameritsch** Chief Financial Officer and Chief Information Officer		**Dr. Silke Maurer** Chief Operating Officer [1]		**Michael Schreyögg** Chief Program Officer		**Total**	
in €	**2024**	2023	**2024**	2023	**2024**	2023	**2024**	2023	**2024**	2024
Fixed compensation	1,100,004	999,996	660,000	600,000	660,000	550,000	660,000	600,000	3,080,004	2,749,996
Pension allowance [2]					200,000	183,333			200,000	183,333
Fringe benefits [3]	39,479	36,386	9,595	9,863	10,347	16,001	29,911	26,826	89,333	89,076
Total non-performance-related compensation	**1,139,483**	**1,036,382**	**669,595**	**609,863**	**870,347**	**566,001**	**689,911**	**626,826**	**3,369,337**	**3,022,405**
Proportion of non-performance-related compensation in %	**28%**	**54%**	**32%**	**59%**	**38%**	**59%**	**32%**	**59%**		
STI [4]	2,133,472	896,250	1,048,344	430,200	1,048,344	394,350	1,048,344	430,200	5,278,504	2,151,000
LTI (2024: PSP [5] | 2023: RSP [4])		1,100,000		540,000		495,000		540,000		2,675,000
Additional ad hoc performance-related compensation in special exceptional cases [6]	800,000		400,000		400,000		400,000		2,000,000	
Total performance-related compensation	**2,933,472**	**896,250**	**1,448,344**	**430,200**	**1,448,344**	**394,350**	**1,448,344**	**430,200**	**7,278,504**	**2,151,000**
Proportion of performance-related compensation in %	**72%**	**46%**	**68%**	**41%**	**62%**	**41%**	**68%**	**41%**		
Total compensation granted and owed	**4,072,955**	**1,932,632**	**2,117,939**	**1,040,063**	**2,318,691**	**960,351**	**2,138,255**	**1,057,026**	**10,647,841**	**5,173,405**
Pension expenses (IAS 19) [7] [8]	588,570	2,159,675 [9]	200,267	392,549			185,617	456,207	974,454	3,008,431
Total compensation including pension expenses	**4,661,525**	**4,092,307**	**2,318,206**	**1,432,612**	**2,318,691**	**960,351**	**2,323,872**	**1,513,233**	**11,622,295**	**8,181,836**

[1] Executive Board member since February 1, 2023.

[2] Executive Board members who were appointed to the Executive Board for the first time after January 1, 2021 receive a pension allowance for their own pension provision.

[3] Fringe benefits include charges to taxable income covering benefits in kind amounting to €55,290 (previous year: €58,279) , premiums for insurance policies taken out on behalf of members of the Executive Board amounting to €6,786 (previous year: €5,997) and membership dues amounting to €27,257 (previous year: €24,802).

[4] The payment is made after approval of the consolidated financial statements in the following year.

[5] The LTI from the PSP (tranche 2024) will be reported as compensation granted or owed after the end of the four-year performance period in fiscal year 2027.

[6] Resolution by the Supervisory Board in the reporting year: Waiving the ability to grant this performance-related component from the 2025 financial year onwards - further explanations in the section headed Compensation components and structure / Performance-related components / Additional, performance-related compensation in special exceptional circumstances.

[7] A defined benefit commitment is granted to Executive Board members who were appointed for the first time before the 2021 financial year.

[8] In fiscal year 2023, the IFRS pension expenses (IAS 19) were influenced by past service costs in connection with the adjustment of the basic compensation as of January 1, 2024, which determines the respective pension commitment.

[9] In fiscal year 2023, the IFRS pension expenses (IAS 19) were influenced by past service costs in connection with the adjustment of the basic compensation due to appointment as CEO effective January 1, 2023.

Members of the Executive Board did not receive any compensation for supervisory board and similar appointments at Group companies. The Group did not grant any loans to members of the Executive Board in the reporting period or the previous year.

The compensation of the members of the Executive Board did not have to be adjusted due to a malus or clawback in either the reporting period or the previous year. Moreover, there was no need to temporarily depart from the defined compensation system due to specific exceptional circumstances.

The compensation of the members of the Executive Board did not have to be adjusted due to exceeding the maximum compensation set in either the reporting period or the previous year.

Former Executive Board members received pension payments of €917,341 in the reporting period (Reiner Winkler €607,650; Dr. Rainer Martens €309,691).

Vertical comparison

The following table shows the change in the individual compensation of the Executive Board and Supervisory Board members, the earnings indicators for the company and the Group and the average compensation of the workforce. The following aspects are to be taken into account here:

/ Unlike the rest of the workforce, the Executive Board's target direct compensation is so far reviewed and, if necessary, adjusted not on an annual basis but at less frequent intervals and thus has to take into account a multi-year adjustment for inflation.

/ The impact of performance-related compensation components varies greatly in the vertical comparison because of the differentiated compensation structures, and no conclusions can be drawn from these about the development of the target direct remuneration.

/ The retention of profits within foreign subsidiaries means that MTU Aero Engines AG's net profit after tax calculated in accordance with the German Commercial Code (HGB) is of limited use as an indicator of the MTU Group's performance and therefore as a reference for the development of the performance-related compensation components. Accordingly, the Group's EBIT (adjusted), which is also used as the financial performance target for performance-related remuneration components for the Executive Board and all of the German workforce, is reported here as additional information.

/ In all compensation groups evaluated, the calculation of the annual changes in compensation excludes company pension schemes.

Vertical comparison

	2024	Change 2024 vs. 2023 in %	2023	Change 2023 vs. 2022 in %	2022	Change 2022 vs. 2021 in %	2021	Change 2021 vs. 2020 in %	2020
Compensation granted and owed to Executive Board members active in the reporting period									
Lars Wagner	4,072,955	34%	3,032,632	53% [1]	1,977,460	9%	1,809,566	32%	1,374,109
Peter Kameritsch	2,117,939	34%	1,580,063	–20%	1,973,178	9%	1,812,449	31%	1,379,276
Dr. Silke Maurer	2,318,691	41%	1,638,685	– [2]					
Michael Schreyögg	2,138,255	34%	1,597,026	–20%	1,991,578	9%	1,830,669	31%	1,395,212
Earning indicators									
Adjusted Group EBIT (IFRS)	1,053	29%	818	25%	655	40%	468	13%	416
Net profit of MTU Aero Industries AG (German Commercial Code [HGB])	494	294%	–255	–195%	267	35%	198	50%	132
Average compensation of the worldforce									
Employees in Germany [3]	99,265	5%	94,380	6%	88,870	2%	87,118	8%	81,035

[1] Appointed CEO effective January 1, 2023 – as a result, his target direct compensation was adjusted.
[2] Executive Board member since February 1, 2023.
[3] Includes the active workforce in Germany (permanent employees, including employees on parental leave working part-time) standardized to full-time equivalents (FTEs) based on the following compensation elements: non-performance related basic salary and, depending on employment group, collectively agreed one-time payments or performance-related variable compensation (profit-sharing bonus, bonuses I and II, STI and RSP / LTI).

Vertical comparison

	Change 2024 vs. 2023 in %	Change 2023 vs. 2022 in %	Change 2022 vs. 2021 in %	Change 2021 vs. 2020 in %
Compensation of former Executive Board members				
Dr. Rainer Martens	1%	1%	34%	– [1]
Dr. Stefan Weingartner			– [2]	– [2]
Reiner Winkler	1%	– [3]		
Compensation granted and owed to present Supervisory Board members				
Gordon Riske (Chairman of the Supervisory Board, Personnel Committee and Nomination Committee) (since May 5, 2022)	0%	55%	– [4]	
Josef Mailer (Deputy Chairman of the Supervisory Board)	0%	0%	74%	–6%
Dr. Joachim Rauhut (Chairman of the Audit Committee until May 8, 2024; member of the Personnel Committee and Nomination Committee since May 11, 2023 until May 8, 2024)	–62%	14%	85%	–5%
Ute Wolf (Supervisory Board member since May 11, 2023; Chair of the Audit Committee and member of the Personnel Committee and Nomination Committee since May 8, 2024)	148%	– [3]		
Dr. Christine Bortenlänger (member of the Audit Committee since April 22, 2021)	–2%	0%	97%	17%
Dr. Johannes Bussmann (since May 8, 2024)	– [5]			
Kai Eisenblätter (Supervisory Board member since May 11, 2023)	46%	– [3]		
Daniele Frijia (Supervisory Board member since August 17, 2022)	2%	152%	– [4]	
Dr. Marc Haltrich (Supervisory Board member since May 11, 2023)	46%	– [3]		
Anita Heimerl	–3%	3%	67%	0%
Dr. Rainer Martens (Supervisory Board member since January 26, 2021)	–3%	3%	77%	– [1]
Claudia Sowa-Frank (Supervisory Board member since May 11, 2023)	57%	– [3]		
Univ.-Prof. Dr. Marion A. Weissenberger-Eibl	–3%	3%	67%	3%

[1] First-time payment in fiscal year 2021.
[2] One-time payment in fiscal year 2021.
[3] First-time payment in reporting period.
[4] First-time payment in fiscal year 2022.
[5] First-time payment in reporting period.

Rules when terminating the contracts of members of the Executive Board

Regulations in the event of joining or leaving during the year

If an individual joins or leaves the Company during the fiscal year, entitlements to fixed remuneration and STI and PSP/LTI performance-related remuneration components are reduced pro rata temporis.

Pension arrangements

The active members of the Executive Board in the reporting year who were appointed before fiscal year 2021 earn vested entitlements to company pension benefits in accordance with the "MTU Pension Capital – Pension Provisions for Members of the MTU Aero Engine's AG Executive Board" plan. The benefit target is to provide a pension amounting to 60% of the fixed basic compensation after 15 years of service on the Executive Board.

To replace any MTU pension entitlements earned by individual Executive Board members prior to their appointment to the Executive Board, they are granted an initial transfer amount equal to their individually earned pension capital. Once the initial transfer amount has been determined, a pension account is opened for each eligible member of the Executive Board, to which further capital units are credited annually. The annual capital units are determined on the basis of the individual Executive Board member's contribution and an age-related factor. The age-related factor represents an interest rate of 6% p.a. until the age of 60. As a rule, the contribution period is limited to 15 years of service on the Executive Board and ends when the member reaches the age of 60. From the age of 61, the pension capital earns interest at 4% p.a. until the pension is drawn (= bonus amount) up to the age of 65. The total of the accrued capital units, plus the initial transfer amount and any bonus amounts credited, make up the pension capital available to finance post-employment benefits.

If benefits are payable because a member of the Executive Board becomes disabled or dies before reaching the fixed retirement age of 60, 50% of the benefits earnable up to the fixed age limit are added to the accrued balance on the pension account, taking into account the promised contribution period. The amount credited is based on the contribution paid at the time of exit.

When an insured event occurs, the pension capital is generally granted as a one-time payment. At the request of the Executive Board member and subject to the Group's approval already granted, a lifelong annuity may be granted, with 1% adjustment p.a. Alternatively, at the request of the Executive Board member, the capital may be drawn in 10 installments, with a 4% increase in each case.

Executive Board members appointed for the first time after January 1, 2021 receive a pension allowance in the form of a lump-sum payment for their own pension provision, which is paid out annually in cash, instead of an entitlement to a direct defined benefit commitment. Granting the pension allowance instead of direct commitments relieves MTU of the actuarial opportunities and risks related to defined benefit commitments.

Basic details of the above-mentioned commitments and benefits are shown individually in the following table:

Existing post-employment benefit entitlements

Members of the Executive Board in €	Initial transfer amount [1]	Guaranteed capital [2]	Annual contribution	End of contribution period	Annual pension amount [3]
Lars Wagner	207,344	207,344	543,962	31.12.2025	424,682
Peter Kameritsch	461,573	461,573	297,504	31.12.2025	245,867
Michael Schreyögg	365,627	365,627	378,089	31.07.2026	357,065

[1] Entitlements earned up to the time of the change in the pension plan - Michael Schreyögg: July 1, 2013; Peter Kameritsch and Lars Wagner: January 1, 2018.

[2] Level of benefits to which the insured party would have been entitled under the previous pension plan.

[3] All entitlements to company pension benefits (excluding individual employee-funded capital account ["Pension Capital Aufbaukonto"] from previous periods of service) taking into account the maximum contribution period. In the case of Lars Wagner and Peter Kameritsch, contributions were taken into account until December 31, 2025.

The differences in the annual contributions to the pension accounts result from the remaining periods of service until the end of the respective maximum contribution period, the respective age-related factors, and the individual amounts of pensionable compensation.

The following table shows the service cost for the reporting period and the previous year, and the corresponding levels of provisions, recognized in accordance with IFRS for members of the Executive Board:

Allocations to pension provisions and total amounts recognized

Members of the Executive Board in €	Year	Service cost (IFRSs)	Past service cost (IFRSs)	Carrying amount of pension provisions as of Dec. 31 (IFRSs) [1]
Lars Wagner	**2024**	**588,570**	**0**	**4,942,257**
	2023	474,533	1,685,142 [2] [3]	5,074,706
Peter Kameritsch	**2024**	**200,267**	**0**	**5,846,312** [4]
	2023	169,433	223,116 [2]	5,593,686
Michael Schreyögg	**2024**	**185,617**	**0**	**6,687,857**
	2023	158,430	297,777 [2]	6,427,521
Total	**2024**	**974,454**	**0**	**17,476,426**
	2023	**802,396**	**2,206,035**	**17,095,913**

[1] Where appropriate, the provisions include obligations relating to claims arising from the individual employee-funded capital accounts ("Pension Capital Aufbaukonto") from previous service periods.
[2] In the reporting period, the IFRS pension expenses (IAS 19) were influenced by past service costs in connection with the adjustment of the basic compensation as of January 1, 2024, which determines the respective pension commitment.
[3] In the reporting period, the IFRS pension expenses (IAS 19) were influenced to a large extent by past service costs in connection with the adjustment of the basic compensation due to appointment as CEO effective January 1, 2023.
[4] As a result of Peter Kameritsch's decision in January 2025 not to agree to extend the mandate beyond December 31, 2025, the provision would be reduced to EUR 4,416,138 as of December 31, 2024.

The defined benefit obligations (DBO) for former members of the Executive Board, measured in accordance with International Financial Reporting Standards (IFRS), amount to €21,551,775 (previous year: €22,113,042).

Early termination of contracts of service

Severance payment

Members of the Executive Board whose contract of service is terminated early by MTU are entitled to receive a severance payment equivalent to the total of the prorated fixed compensation, prorated short-term incentive (STI) and prorated compensation under the Performance Share Plan (PSP/LTI) for the original remaining term of their contract. The severance payment is capped at twice the departing Executive Board member's total annual compensation ("severance payment cap").

If the contract of service is terminated by MTU for compelling cause, no severance payment is made. In this case, all PSP/LTI tranche expire without compensation.

In the event of a change of control (CoC), Executive Board members have the right to resign from their office as a member of the Executive Board for cause. Under the contracts of service for members of the Executive Board, a change of control is deemed to have occurred if a shareholder, alone or on the basis of voting rights attributable to that shareholder pursuant to Sections 33 ff of the German Securities Trading Act (WpHG), acquires the majority of the voting rights in the company and this results in significant disadvantages for the Executive Board. Material disadvantages are, in particular, if the Executive Board member is removed, if the member's responsibilities and duties are significantly altered, or if the Executive Board member is asked to accept a reduction in employment benefits or to agree to premature termination of the respective contract of service. In such case, each member of the Executive Board shall have a special right of resignation, which is to be exercised within a period of six months, with a period of notice of three months to the end of a month. If a member of the Executive Board makes use of the special right of resignation, or if the Executive Board member's contract of service is terminated by mutual consent within nine months of the change of control, the Executive Board member receives a severance payment corresponding to the benefits still to be awarded up to the end of the contract term originally agreed. For the calculation of the severance payment, 100% target fulfillment is agreed for the variable compensation components. The maximum amount of the severance payment is limited to the severance payment cap.

Incapacity to work and death

In the event of incapacity to work due to illness, accident or another reason for which the Executive Board member is not responsible, the Executive Board member shall continue to receive their fixed compensation for a period of 12 months, but no longer than until the end of the Executive Board contract of service. The short-term incentive will also continue to be granted. If the temporary incapacity to work lasts longer than 12 months, the payment amount determined at the end of the performance period is reduced proportionately. This is calculated from the following ratio: the number of full months of incapacity for work beyond the 12-month period in relation to the total performance period of 48 months.

If the Executive Board member dies during the term of the Executive Board contract of service, the spouse, registered partner or dependent children receive the (pro rata) fixed compensation for the month of death and the three months following the month of death. A pro rata claim up to the end of the month of death arises for STI. In this case, the payout ratio of 100% and the strategic multiplier of 1 are taken into account and multiplied by the individual target amount. With respect to the tranche(s) of the Performance Share Plan (PSP/LTI) prior to the expiration of the performance period, all virtual performance shares will be forfeited, and a compensatory payment will be made for the virtual performance shares. Here, the conditionally allocated number of virtual shares is multiplied by the average MTU share price of the last 60 trading days before the date of death, and the dividends paid within the performance period up to that point are added.

Performance-related compensation in the event of early termination of the contract of service

If the appointment is revoked by MTU for compelling cause, the Executive Board member shall not receive any short- term incentive (STI) for the fiscal year in progress at the time of end of membership of the Executive Board if the contract of service is terminated without notice.

If the Executive Board contract of service ends by termination by MTU without notice for cause in accordance with Section 626 (1) of the German Civil Code (BGB) or by the resignation of the mandate by the Executive Board member without a mutually agreed arrangement, or if the appointment is revoked by the Supervisory Board for cause pursuant to Section 84 (4) of the German Stock Corporation Act (AktG) before the end of the performance period, all performance shares of the PSP/LTI shall be forfeited without compensation ("bad leaver").

If a member of the Executive Board ends their term of office after their contract of service has expired, whether at the instigation of MTU or the Executive Board member, the current PSP/LTI tranches granted during their term of office will be paid out to the respective Executive Board member after the assessment period (performance period) and in accordance with the relevant target achievement pursuant to the PSP/LTI plan conditions described ("good leaver").

Compensation of the Supervisory Board

The rules governing Supervisory Board compensation are laid down in the articles of association of MTU Aero Engines AG. The compensation is relative to the size of the Group and the duties and responsibilities of the Supervisory Board members.

Pursuant to Article 12 of the current articles of association of MTU Aero Engines AG, members of the Supervisory Board receive fixed annual compensation of €80,000, payable after the end of the fiscal year. The chair of the Supervisory Board receives three times and the deputy one-and-a-half times the amount of fixed compensation. In addition to this compensation, members serving on one of the Supervisory Board's committees receive an additional €20,000 for the fiscal year and a further €40,000 for the fiscal year if they chair a committee. Furthermore, members of the Supervisory Board receive an attendance fee of €3,000 per meeting of the Supervisory Board and its committees, limited to €3,000 per day. Expenses incurred in connection with the exercise of their office are reimbursed, as is any value-added tax payable on compensation. The members of the Supervisory Board do not receive any share-based compensation.

The following table contains an individualized breakdown of the compensation of each Supervisory Board member in the reporting period (figures exclude value-added tax). The fixed annual payment and compensation for committee membership are disclosed as compensation owed and comprise the compensation for the reporting period paid out at the start of the following year.

The attendance fees are disclosed as compensation granted and are the amounts paid to each member in the reporting period.

Compensation granted and owed to the Supervisory Board for 2024

Supervisory Board members	Fixed annual payment		Compensation for membership in committee		Attendance fees		Total compensation	
	in €	in %	in €	in %	in €	in %	in €	in %
Gordon Riske (Chairman of the Supervisory Board, Personnel Committee and Nomination Committee)	240,000	66%	90,000	25%	33,000	9%	363,000	100%
Josef Mailer (Deputy Chairman of the Supervisory Board) [1) 4) 7)]	120,000	60%	40,000	20%	39,000	20%	199,000	100%
Dr. Joachim Rauhut (Chairman of the Audit Committee until May 8, 2024; member of the Personnel Committee and Nomination Committee since May 11, 2023 until May 8, 2024) [2) 5)]	28,444	38%	32,000	42%	15,000	20%	75,444	100%
Ute Wolf (Vorsitzende Prüfungsausschuss seit 8.5.2024) [3) 6)]	80,000	47%	58,250	34%	33,000	19%	171,250	100%
Dr. Christine Bortenlänger [4)]	80,000	60%	20,000	15%	33,000	25%	133,000	100%
Dr. Johannes Bussmann (since May 8, 2024)	51,778	74%			18,000 [8)]	26%	69,778	100%
Kai Eisenblätter [7)]	80,000	79%			21,000	21%	101,000	100%
Daniele Frijia [1) 7)]	80,000	63%	20,000	16%	27,000	21%	127,000	100%
Dr. Marc Haltrich	80,000	79%			21,000	21%	101,000	100%
Anita Heimerl [7)]	80,000	79%			21,000	21%	101,000	100%
Dr. Rainer Martens	80,000	79%			21,000	21%	101,000	100%
Claudia Sowa-Frank [4) 7)]	80,000	60%	20,000	15%	33,000	25%	133,000	100%
Univ.-Prof. Dr. Marion A. Weissenberger-Eibl	80,000	79%			21,000	21%	101,000	100%
Total	**1,160,222**		**280,250**		**336,000**		**1,776,472**	

1) Member of the Personnel Committee.
2) Member of the Personnel Committee until May 8, 2024.
3) Member of the Personnel Committee since May 8, 2024.
4) Member of the Audit Committee.
5) Member of the Nomination Committee until May 8, 2024.
6) Member of the Nomination Committee since May 8, 2024.
7) These employee representatives have declared that they will donate their Supervisory Board compensation to the Hans-Böckler-Stiftung, in accordance with the guidelines of the Confederation of German Trade Unions.
8) Dr. Johannes Bussmann waived an attendance fee of EUR 3,000.

Note: This is a translation of the German original. Solely the original text in German language is authoritative.

Independent Auditor's Report

To MTU Aero Engines AG, Munich
Report on the audit of the remuneration report

We have audited the attached remuneration report of MTU Aero Engines AG, Munich, for the financial year from January 1 to December 31, 2024, including the related disclosures, prepared to meet the requirements of Section 162 AktG [Aktiengesetz: German Stock Corporation Act].

Responsibility of the Management Board and the Supervisory Board
The management and the Supervisory Board of MTU Aero Engines AG are responsible for the preparation of the remuneration report, including the related disclosures, in accordance with the requirements of § 162 AktG. The management and the Supervisory Board are also responsible for such internal control as they have determined necessary to enable the preparation of the remuneration report that is free from material misstatement. whether due to fraud or error.

Auditor's responsibilities
Our responsibility is to express an opinion on this remuneration report, including the related disclosures, based on our audit. We conducted our audit in accordance with the German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the remuneration report, including the related disclosures, is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts, including the related disclosures, in the remuneration report. The procedures selected depend on the auditor's professional judgement. This includes an assessment of the risks of material misstatement, whether due to fraud or error, in the remuneration report, including the related disclosures. In assessing these risks, the auditor considers the internal control system relevant for the preparation of the remuneration report, including the related disclosures. The objective is to plan and perform audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management and the Supervisory Board, as well as evaluating the overall presentation of the remuneration report, including the related disclosures.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion
In our opinion, on the basis of the knowledge obtained in the audit, the remuneration report for the financial year from January 1 to December 31, 2024, including the related disclosures, complies in all material respects with the financial reporting requirements of Section 162 AktG.

Other matter – formal examination of the remuneration report
The substantive audit of the remuneration report described in this independent auditor's report includes the formal examination of the remuneration report required by Section 162 (3) AktG, including issuing an assurance report on this examination. As we have issued an unqualified opinion on the substantive audit of the remuneration report, this opinion includes the conclusion that the disclosures pursuant to Section 162 (1) and (2) AktG have been made, in all material respects, in the remuneration report.

Limitation of liability
The terms governing this engagement, which we fulfilled by rendering the aforementioned services to MTU Aero Engines AG, are set out in the General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms] as amended on 1 January 2024. By taking note of and using the information as contained in this auditor's report, each recipient confirms to have taken note of the terms and conditions laid down therein (including the limitation of liability of EUR 4 million for negligence under Clause 9 of the General Engagement Terms) and acknowledges their validity in relation to us.

Munich, March 18, 2025

KPMG AG
Wirtschaftsprüfungsgesellschaft
[Original German version signed by:]

Huber-Straßer	Hanshen
Wirtschaftsprüferin	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

Combined management report

Combined management report

The management report of MTU Aero Engines AG and the Group management report for the fiscal year 2024 have been combined in accordance with Section 315 (5) of the German Commercial Code (HGB) in conjunction with Section 298 (2) of the German Commercial Code (HGB). Content of internet sites referred to in the combined management report are not components of the combined management report and are not audited; such references are for information purposes only.

The MTU Group

Business activities and markets

MTU's portfolio covers the entire lifecycle of commercial and military aircraft engines and aero-derivative industrial gas turbines. The company's activities range from development, manufacturing and sales to maintenance.

MTU has technological expertise in low-pressure turbines, high-pressure compressors and turbine center frames, and in repair techniques and manufacturing processes. Through risk- and revenue-sharing partnerships, it is involved in important national and international technology programs and cooperates with the top names in the industry (GE Aerospace, Pratt & Whitney and Rolls-Royce).

The Group also provides maintenance services for commercial aircraft engines. In the military sector, it has been the leading industrial partner to the German armed forces for decades.

MTU operates in two segments: the OEM business (Original Equipment Manufacturing) and MRO business (Maintenance, Repair and Overhaul). The OEM segment covers new commercial engines, including spare parts, and the whole of the military sector. The MRO segment covers the commercial repair and maintenance business.

Group structure, locations and organization

Through its subsidiaries, joint ventures and equity investments, MTU has a presence in all key markets and regions worldwide. Further information on MTU's shareholdings is provided in the *Notes to the consolidated financial statements in section I. Accounting policies and principles*.

MTU Aero Engines worldwide

MTU Maintenance Canada

MTU Aero Engines North America

MTU Maintenance Dallas

MTU Maintenance do Brasil

MTU Aero Engines

MTU Maintenance Hannover

MTU Maintenance Berlin-Brandenburg

MTU Maintenance Lease Services

MTU Aero Engines Polska

MTU Maintenance Serbia

EME Aero[1]

AES Aerospace Embedded Solutions[1]

Pratt & Whitney Canada Customer Service Centre Europe[1]

Ceramic Coating Center[1]

MTU Maintenance Zhuhai[1]

Airfoil Services[1]

[1] Joint Ventures.

MTU's global workforce

Number of employees	Dec. 31, 2024	Dec. 31, 2023	Change against previous year: Employees	Change against previous year: in %
Locations in Germany	10,181	9,783	398	4.1
Locations outside Germany	2,711	2,387	324	13.6
Total workforce	**12,892**	**12,170**	**722**	**5.9**

Corporate strategy

In 2024, MTU restructured its strategic framework for a more focused approach to achieving its ongoing strategic objectives and sustain them over the long term.

The realigned structure for the MTU Strategy Framework is as follows:

Based on the company’s overarching vision – We shape the future of aviation – the first step was to fine-tune the strategic mission “MTU 2030 & Beyond”. The intention behind this is to lay the foundation for profitable growth in the next decade, along with increased competitiveness and efficiency and a stronger focus on collaboration, digitalization, and internationalization.

The following diagram describes the target status that MTU aims to achieve by 2030 based on the current set-up.

Target Picture “MTU 2030 and beyond”

Our business	• We have significantly increased our OEM & MRO portfolio while balancing MTU’s risk exposure. • We are the customers' first choice through our excellent global MRO network, while remaining the No. 1 independent service provider. • We support Europe's air sovereignty and count ourselves among the leading providers of defense and services for armed forces in Europe and beyond. • We act entrepreneurially and constantly improve our daily work in the areas of efficiency and innovation. We constantly explore relevant new business opportunities for the company. • We have achieved the milestones in our technology roadmap and continue to pioneer evolutionary and revolutionary engine concepts towards the vision of emission-free flying.
Our performance	• We are an independent, resilient and highly competitive company. Our products and services “made by MTU” are world-class. • We are a highly efficient company and grew profitably with a common cost awareness and continually drive for optimization.
Our enabler	• We perform best through globally harmonized and scalable End-to-End business processes in a state-of-the-art organizational set-up. • We rely on a highly performing, globally standardized and secure IT landscape. Digital transformation continues to support our operational excellence and enables further growth. • We have increased and are continuously enhancing our international network and best-cost footprint. • We are employer of choice by creating moments that matter through leadership and collaboration. • We have grown globally in recent years. We are not just international and diverse in name, but also in mindset and across all levels. • We live our corporate values across all locations, which is based on a joint vision, common understanding and mutual respect (“OneMTU”). • We significantly improved our environmental footprint and continue to focus on climate neutral sites.

The long-term objectives for all MTU business areas and the management of the current and future product portfolio are summarized under “Our Business”. In terms of portfolio strategy, MTU is focusing on stakes in fast-growing, high-volume commercial and military engines. MTU intends to optimize its risk profile and growth potential through continuous participation in varying thrust classes and fields of application. MTU’s stakes in engine programs cover the entire lifecycle of the engines, ranging from initial analyses and assessments of a program stake, through contractual arrangements, development and production phases, to maintenance and repair services. MTU's technical, operational and financial capabilities are the defining factors that make the company an attractive partner in the engine consortia undertaking the programs.

In the commercial engine business, the current focus is on the ongoing ramp-up of production and maintenance capacity for Geared Turbofan engines for regional and medium-haul jets, measures to bolster the profitability of the programs, the ongoing development of this engine as the Geared Turbofan "Advantage" and preparing the next generation of Geared Turbofan engines, which is scheduled for the end of the next decade.

In parallel, MTU is preparing for the market launch of GE Aerospace's GE9X engine program for the Boeing 777X widebody aircraft, which is scheduled for 2026. There will also be a cargo version of the Boeing 777X, which is likely to be delivered in 2028.

In the commercial maintenance and repair business, the company drove forward the expansion of its portfolio of products and services, including digital services, to enhance customer satisfaction and continuously broaden its customer base. In the maintenance business, MTU won customer contracts worth over €5 billion in 2024. MTU also made progress on enhancing digital services for its customers. AI-based systems are being used to analyze ever larger volumes of data and arrive at well-informed decision recommendations, such as predicting the ideal time to service engines.

In the military business, progress continued on the development of the new FCAS (Future Combat Air System), following placement of the order at the end of 2022. MTU forged ahead on developing the engine technology for this with its partners Safran Aircraft Engines (Paris, France) and IPT Aero (Zamudio, Spain). Alongside the program partners Germany, France and Spain, Belgium is acting as an observer to the European cooperation program.

Development of the new Digital Engine Control & Monitoring Unit (DECMU) for the EJ200 program is progressing. The project reached several important milestones in 2024, and the first units will be available for tests and certification activities in 2025. The new Digital Engine Control & Monitoring Unit will replace the previous technology and secure the EJ200 engine's future. This will also support the future development of the aircraft and engine as part of the long term evolution (LTE) of the Eurofighter. An order was received from Spain for 59 engines for the EJ200 program in 2024.

Another highlight of 2024 was the cooperation agreement signed between Safran Helicopter Engines and MTU, establishing the 50/50 joint venture dubbed EURA – **EU**ropean Military **R**otorcraft Engine **A**lliance. This is an important step towards the joint development of a new, all-European engine for the next generation of European military helicopters.

In extending its technological leadership, MTU is focusing on the ongoing development of gas turbines for aircraft. In combination with optimized cyclic processes, the aim for the mid term is to raise the efficiency of MTU's core modules – the low-pressure turbine, high-pressure compressor and turbine center frame – and reduce their weight while also improving their stability, in order to increase profitability and environmental friendliness.

In parallel, MTU is stepping up research into alternative propulsion concepts, together with its partners in industry, science and research. As part of its technology agenda Clean Air Engine (Claire), MTU therefore defines time horizons, targets and possibilities for implementation and the three areas of aviation: short-, medium-, and long-haul flights. MTU is working on the Flying Fuel Cell (FFC) for full electrification of the powertrain. The goal is that a fuel cell will convert liquid hydrogen into electricity, which in turn will be used to drive electric motors.

In addition to alternative propulsion systems, on the road to climate-neutral aviation, sustainable aviation fuels (SAFs) play an important role. They have the potential to significantly reduce the climate impact of aviation with the engines currently used in aircraft. MTU is therefore playing a part in this field, for example, as a founding member of the association aireg (Aviation Initiative for Renewable Energy in Germany e.V.)

Alongside technical improvements to products, the digitalization of products, services and value-creation processes is increasingly important. MTU's activities here are geared primarily towards reducing lead times and costs. In development, one example of this is making extensive use of simulation techniques in all disciplines, right through to full integration in the virtual engine.

"Our Performance" encompasses all activities designed to keep MTU competitive over the long term and enable it to go on improving customer satisfaction. On the operational side, these primarily involve steps to reduce production line throughput times and the capital tied up in the company, as well as to ensure that MTU maintains its high quality standards.

MTU's most important task is fulfilling its delivery obligations to partners and customers. To this end, in the Technology division it has established a lean matrix organization based on material flows to achieve a further improvement in collaboration, smooth processes and greater efficiency.

The goal is to continuously optimize MTU's supply chain and its production and service network in terms of delivery capability, quality and costs.

"Our Enablers" addresses the key enablers required in order for MTU to achieve its 2030 strategic objectives and essentially covers all strategies at both company and functional levels.

The enablers that form the backbone of this are the overarching topics of human resources, processes and digitalization, a global presence, and financial performance. They are the long-term success factors in a constantly changing environment and describe the ambitions that MTU plans to implement in the form of initiatives by 2030:

- In Human Resources, "One MTU" represents a development- and performance-oriented corporate culture with a strong sense of social responsibility and a set of values built on mutual respect and trust. The company promotes cultural and workforce diversity, flexible working conditions and high-quality basic and further training opportunities for its workforce. Other core elements of the HR strategy that support MTU's growth include strategic workforce planning, training management and management development. The company's positioning as an attractive employer and changes to the HR organization and IT systems are part of this as well. Promoting entrepreneurial thinking, cost-conscious behavior and the continuous quest for improvements and innovations is intended to underpin MTU's overarching corporate vision "We shape the future of aviation".
- Where processes and digitalization are concerned, intelligent networking across all sites is crucial to MTU's growth plans. MTU will place particular emphasis on harmonized and digital end-to-end processes and scalable, resilient IT that is anticipated to facilitate seamless global business processes and efficient collaboration.
- In terms of global presence, MTU is planning to boost its capacity and increase its competitiveness by investing further in production, maintenance and repair sites. In addition to its production activities, MTU is also increasingly building up support activities and processes at its locations in Poland and Serbia. In addition, this gives it extended access to skilled employees. Establishing and extending locations, especially on a best-cost basis, supports MTU's growth trajectory.
- With regard to financial performance, MTU is striving to keep improving its financial performance and, as a result, boost its competitiveness and financial capacity. Ongoing reviews and a targeted approach to potential efficiency gains by way of appropriate initiatives are both essential in efforts to achieve overarching financial objectives and guarantee sustainable economic success, both now and in the future.

MTU strives to achieve sustainable and responsible business growth. Consequently, MTU has set ambitious objectives for reducing carbon emissions at its production sites as part of its sustainability strategy. The "ecoRoadmap" climate strategy has been applied globally at all MTU-controlled production sites in Germany and abroad since 2023 and is designed to reduce CO_2 emissions by 60% by 2030 relative to the reference year of 2019.

MTU regards responsible economic activity as an important criterion in its competitiveness, and acts in harmony with its sustainability strategy.

Key performance indicators

The implementation of MTU's corporate strategy, which is focused on profitable growth, customer satisfaction and sustainability, is managed through key financial and non-financial performance indicators adopted by the Executive Board. These performance metrics are derived from corporate planning and provide guidance for management of the company in its focus on sustainable and profitable growth of the company. Specific attention is paid to ecological and social aspects. To facilitate decisions that create a suitable environment for implementing the corporate strategy, the manufacturing and support functions are supported by a central risk management, internal control and compliance management system. Based on agreement between the Executive Board and Supervisory Board, the central financial performance indicators, supplemented by focused non-financial performance indicators, are incentivized as part of a value-based compensation system for the Executive Board and senior executives.

Financial performance indicators:

Financial performance indicators

in € million	2024	2023	Change against previous year in € million	Change against previous year in %
Revenue	7,411	5,363	2,048	38.2
Adjusted revenue	7,488	6,326	1,162	18.4
Adjusted EBIT	1,050	818	232	28.4
Adjusted EBIT margin (in %)	14.0	12.9	1.1	8.5
Adjusted net income	764	594	171	28.8
Adjusted earnings per share (in €)	14.04	10.96	3.08	28.1
Free cash flow	183	352	-169	-48.0

MTU identifies the value-driving financial KPIs of revenue (adjusted), EBIT (adjusted), net income (adjusted) and earnings per share (adjusted) and free cash flow (adjusted) as the most important indicators of financial performance. The aforementioned KPIs define the financial balance that MTU has to strike between growth, profitability and liquidity.

Further information about the definition and refinement of the aforementioned financial KPIs is provided under *Reconciliation to adjusted key financial performance figures in the Results of operations section* and under *Financial position*.

MTU's key performance indicators were revised in 2024. Alongside the financial KPIs outlined above, they take the following non-financial KPIs into account.

Non-financial performance indicators:

In addition to the value-driving financial KPIs, MTU also began taking the KPIs of "CO_2 savings through sustainable measures" and maximum, non-offset "Residual CO_2 emissions" into account in 2019 in order to apply its sustainability and climate strategy at operational level. These figures add the dimension of sustainability to the financial priorities of growth, profitability and liquidity and, in particular, help to integrate the future of viability of MTU's business model into its steering system.

Furthermore, MTU considers supplementary non-financial performance indicators that enhance the requisite thematic breadth of the steering system in terms of sustainability. However, because of their weighting, only the indicators of financial performance outlined above are to be classified as the most significant key performance indicators.

Information regarding the definition and refinement of the aforementioned non-financial KPIs is provided under *Short-Term Incentives (STI) in the chapter Development of performance-related components in the Compensation report*.

Research and development

Framework conditions and goals

The Paris Agreement initiated a paradigm shift in aviation. While previous goals focused exclusively on the direct CO_2 effects on the climate, the entire climate impact of aviation is now taken into consideration, for example in the Fly the Green Deal roadmap set out by the Advisory Council for Aviation Research and Innovation (ACARE). This includes non-CO_2 effects such as the climate impact of emissions of nitrogen oxides and water, as well as the impact of condensation trails, which increase cloud formation. As an intermediate step towards meeting the goal of the Paris Agreement, the European Green Deal defines a 55% reduction in greenhouse gas emissions by 2030 compared with 1990, and the achievement of climate neutrality by 2050. In the "Fit for 55" package, the European Commission has proposed and implemented measures over the past few years to help achieve these targets. Examples include reforms to the European emissions trading system, complete with a monitoring, reporting and verification (MRV) system for recording all non-CO_2 effects occurring in European aviation with the aim of potentially also pricing them, and the introduction of a minimum quota for the use of sustainable aviation fuels. Alongside such measures, there is a need, above all, for innovative solutions for aircraft and engines.

But the transformation to sustainable aviation is not the only imperative that is driving technology requirements for new propulsion systems. Current events are bringing Europe's security and defense and capabilities into sharp focus. Joint European defense projects, such as Future Combat Air System (FCAS) or European Next Generation Rotorcraft Technologies (ENGRT) project, not only help to strengthen sovereignty in times of geopolitical uncertainty but are also a key catalyst for an integrated European defense policy.

Technologies for engines of the future

Commercial engine programs

MTU's core areas of expertise are low-pressure turbines, high-pressure compressors, turbine center frames, and high-tech production and repair techniques. This technological expertise forms the basis for MTU's work with partners in numerous engine programs.

One of the most significant innovations in the area of aircraft engines in recent decades is the Geared Turbofan (GTF) engine developed by MTU in cooperation with Pratt & Whitney and other partners. Unlike conventional turbofans, in which the fan and low-pressure turbine run at the same speed on a single shaft, the GTF links the two components using a reduction gear. This allows the fan with its larger radius to rotate more slowly, while the low-pressure turbine rotates faster. Consequently, lower fan pressure ratios (high bypass ratios) are achieved, thereby improving thrust efficiency, increasing the efficiency of the fan and the low-pressure turbine, while cutting fuel consumption and carbon dioxide emissions by 20% each and reducing the noise level by 20 EPNdB, bringing it well below the requirement of certification. What is more, the engine is lighter because the low-pressure turbine and low-pressure compressor require fewer stages.

In the GTF project, MTU is responsible for developing and manufacturing the high-speed low-pressure turbine, the front half of the high-pressure compressor and four brush seals. Furthermore, MTU is responsible for the final assembly of one-third of the serially produced engines for the Airbus A320neo – which is performed in Munich – and carries out the acceptance tests for these engines. It is also a partner of Pratt & Whitney in the GTF-MRO network.

According to Pratt & Whitney, the engines in the Geared Turbofan family have clocked up more than 38 million flight hours. Arithmetically, they have avoided over 20 million metric tons of CO_2 compared with comparable use of the previous model.

The next stage in the evolution of this product is already in the test phase. From 2025, Pratt & Whitney and MTU will offer the Pratt & Whitney GTF Advantage™ for the A320neo, an even more efficient PW1100G-JM engine with higher thrust, which will increase range and loading capacity. The increased efficiency is attributable to improvements in the MTU components. Specific design improvements are also being made with the intention of extending the lifecycle.

When it comes to engines of the highest thrust class for long-haul aircraft, MTU is participating in GE Aerospace's GE9X for the new Boeing 777X and is responsible for developing and manufacturing the turbine center frame.

In the business jets segment, the PW800 fleet now boasts 300 aircraft and has clocked up over 450,000 flight hours to date. In addition, another member of the PW500 family is now certified: the PW545D for the Cessna Citation Ascend Jet. MTU is responsible for the low-pressure turbine, turbine exit case and mixer.

MTU's mid- and long-term targets for the development of new commercial engines are aligned to the European Green Deal as an intermediate step towards achieving the overarching goal of the Paris Agreement. The MTU technology agenda Claire (Clean Air Engine) translates these into targets at the level of drive systems and serves as the guide for the company's technology and innovation endeavors. For the next generation of the Geared Turbofan, in addition to extending the lifecycle of components even further, the aim is to achieve another significant cut in fuel consumption and therefore CO_2 emissions. On the one hand, fuel consumption will be lower due to a further reduction in the fan pressure ratio, thereby increasing thrust efficiency. On the other hand, thermal efficiency will be increased by improving the efficiency of components and higher temperature and overall pressure ratios. Weight and dimensions also have a major influence on energy consumption. Here too, continuous improvement is the goal.

To achieve this, for example, highly complex 3D blade designs need to be implemented in a very small space. New coatings and optimized design concepts are examples of factors that should extend the lifecycle of components. Operational insights from the current GTF generation will be incorporated into the design of the next.

Military engine programs

The EJ200 engine powers the Eurofighter and is in service with numerous air forces. In 2024, MTU successfully continued the development of a new digital engine control & monitoring unit (DECMU) which it embarked on in 2021 to secure the future of this engine. The first step was to run hardware and software integration tests. The results were positive, paving the way for full system testing approval. Engine tests are planned for 2025. In addition, Germany, France and Spain are planning to introduce the new Future Combat Air System (FCAS) from 2040. A key component in this system is a new fighter jet, the Next Generation Fighter, which is scheduled to come into service as from 2040. A central element in this new jet is the New Generation Fighter Engine (NGFE), for which MTU and Safran (in a program-specific joint venture, EUMET) will be the joint lead for development, production and after-sales support. Since March 2023, EUMET has been working on the development of propulsion concepts for the Next Generation Fighter in cooperation with ITP as the main partner under the three-year contract for the phase 1B. Initial assumptions on engine requirements and architecture have been agreed with customers and airframe manufacturers, the first milestones have been reached in developing the accompanying technology, and the concept phase for module demonstrators has begun. Around 250 MTU development engineers are already working on the project at this early stage. In parallel to this, contract negotiations are already beginning with the procuring nations for the subsequent contract phase 2, which is due to start in the first half of 2026.

MTU has signed a cooperation agreement with Safran Helicopter Engines to establish the 50/50 joint venture EURA for the next generation of mid-weight European military helicopters. The new helicopter engine should be much more efficient and considerably cheaper to operate and maintain. The aim in this regard is to align the engine technologies with the needs being devised for Europe's next generation of military helicopters as part of the EU project "European Next Generation Rotorcraft Technologies."

New areas of business

An improved version of the conventional gas turbine engine combined with revolutionary technology components has the potential to reduce climate impact even further, and by quite some measure. MTU is therefore investigating hybrid-electric components and technologies for exhaust heat recovery in the SWITCH (Sustainable Water-Injected Turbofan Comprising Hybrid-electrics) clean aviation project, working with industrial partners Pratt & Whitney, Airbus, Collins and GKN as well as other partners from academia.

What is more, fuel cells powered by green hydrogen could represent another major step towards sustainability. In the long term, they have the potential to make flying almost emission-free. For this reason, MTU is working on a fuel cell propulsion system optimized for aviation: the Flying Fuel Cell (FFC). All known demonstration platforms to date are based on solutions from the automotive sector, where – unlike in aircraft applications – weight and parasitic loads play a secondary role. During the reporting period, MTU set up stack and system test stations at the Munich site along with the hydrogen infrastructure required for the fuel cell. MTU also successfully ran component tests, for example on the hydrogen tank system.

As part of the HEROPS clean aviation project (Hydrogen-Electric Zero Emission Propulsion System), MTU is leading the co-development of a multi-megawatt ground demonstrator, joined by industrial partners MT Aerospace, Collins Aerospace, Lufthansa Technik and Eaton as well as partners from academia.

Digitalization

In the context of its digitalization strategy, MTU is examining the entire product lifecycle and the entire value chain from development to manufacture and maintenance. Interdisciplinary working groups have translated the company-specific needs and requirements of the manufacturing and support units into digitalization roadmaps and consolidated and prioritized them for the group. The roadmaps for individual units and topics define the specific areas of work, divided into time horizons of three, five and ten years. By establishing internal structures, the intention is ensure that the topics are managed and dealt with efficiently. One example is the Digi Board, a central body whose role is to prioritize the right projects from a strategic viewpoint on the basis of a cross-functional definition of requirements so that they can be completed efficiently.

Further technology projects have been implemented through digitalization initiatives, which should ultimately lead to what is known as the "virtual engine." Specific process and tool improvements are already being incorporated into current design tasks.

One sub-aspect of this is the "digital twin," a purely digital reproduction of the actual components in a real engine. The main focus here is to network data using the digital thread across all areas from product definition to production and operation. Working with a model-based value chain is a key basis for this. As well as speeding up the development phase by providing more robust predictions, these modules principally aim to reduce production and maintenance costs and increase the quality of components.

New design methods were developed, in particular, for revolutionary engine concepts, where conventional design methods can no longer be used. The highly interdisciplinary nature of these concepts requires a far more detailed overview of the interaction between the aircraft and engine because the key to leveraging their potential essentially lies in intelligent integration and the use of artificial intelligence. To this end, MTU has acquired new insights and capabilities, especially in the field of system engineering.

Materials

Robust, advanced materials and the protective coatings required for them are key technologies that MTU is steadily driving forward for use in the next generation of the Geared Turbofan.

For the development of the NGFE, there is a need for new materials that can withstand high stress levels throughout operation. The focus will be on polymer-based fiber-reinforced composites and on materials manufactured using powder metallurgy.

Corresponding technology projects were intensified with universities, research institutes and industrial partners in the reporting period.

Revolutionary propulsion concepts like the FFC require greatly modified or entirely new materials and coatings, which for example must be suitable for use with hydrogen. MTU is already working on these topics in cooperation with research institutions and industrial partners.

In parallel with this, MTU is extending its capabilities to simulate the manufacture of materials and on the correlation of their properties. This requires modern material database structures and fundamental material models.

Manufacturing and maintenance technologies

MTU uses state-of-the-art manufacturing processes and machinery: To meet the high demand for titanium compressor blisks (blade integrated disks, which combine the blade and disk in a single component), it has built a highly automated center of excellence in Munich with a smart regulation and logistics system. Consequently, MTU made major progress in digital production in 2024. For example, process data is now used for predictive maintenance of the plant equipment in blisk production, which can significantly reduce machine downtime. Predictive quality brings down component costs by minimizing component deviations, rework and quality control, while manufacturing process simulations drastically shorten development times when processes are changed.

For blisks, which are made of nickel-based alloys, which are difficult to process and are used in the aft stages of high-pressure compressors, MTU has developed a new electrochemical material-removal process (Precise Electrochemical Machining – PECM). By working with an extremely small inter-electrode gap, in the micrometer range, PECM accomplishes much greater reproduction precision. There are also plans to use this technology in fields with very complex geometries.

This applies, above all, to future high-pressure compressors, which have increasingly small dimensions as the overall pressure ratios are constantly increasing. Innovative technologies for the cathode design, novel generators, a newly developed type of machine and more efficient and more environmentally friendly electrolyte preparation are to be used.

So far, profile grooves for turbine disks have been produced by broaching. Since turbine disks are also made of materials with high heat resistance that are time-consuming to process and cause heavy wear, MTU aims to transfer PECM technology from compressor blisks to turbine disks. A production line is currently being installed in a dedicated production building. In parallel, proof of readiness for series production is being established. Series production of GTF turbine blisks using PECM technology is scheduled to start in the first quarter of 2026 and should greatly enhance the profitability of the GTF program.

In 2024, MTU put a highly automated blisk manufacturing system into operation at its Munich site and produced the first series components. Turning and milling processes are now fully automated along with all component handling and tool supply, enabling continuous operation 24 hours a day, 7 days a week.

Further optimizations in additive manufacturing were successfully implemented throughout the process chain. For example, depowdering processes were automated, online process control was introduced and a new surface treatment process was established. Preparations are under way to introduce this type of process to manufacture complex components such as bearing housings. The longer-term plan is to create new designs that would be either impossible or very costly to implement using traditional technology.

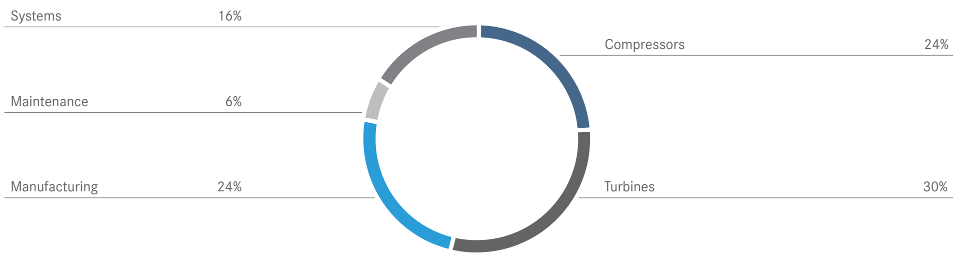
In the commercial maintenance business, engine trend monitoring has been continuously enhanced. The aim is to use AI-supported algorithms, cloud solutions and environmental data to considerably increase the capabilities of this program.

To avoid the laborious disassembly of the entire engine in certain cases, MTU developed blade repair measures that can be carried out in situ on the wing using a borescope and the appropriate tool.

Protecting technology assets (intellectual property)

As of November 2024, MTU's patent portfolio contained 603 patent families (2,153 individual patents). A patent family is a set of identical patents registered in various countries. As of the reporting date, this portfolio covered the following fields of technology:

Breakdown of MTU's patent portfolio by field of technology



Cooperation in science and research

For decades, cooperation with universities and research institutes has been a fixed element of research and development work at MTU. For instance, specimen engines are made available to universities and colleges, while MTU experts give lectures and supervise students writing internship reports, dissertations and theses. In addition, MTU honors outstanding achievements by awarding the annual Heilmann prize to a young scientist meriting recognition for achievements in engine technology.

Strategic alliances are established with research partners in order to strengthen ties between universities and industry, and to safeguard MTU's innovative capabilities. Cooperation with leading German universities and research institutes was stepped up during the past years. In specific areas of research, cooperation with MTU competence centers is continuously being extended.

Bauhaus Luftfahrt, which is based in Munich, is a visionary think tank with an international dimension that pursues unconventional, holistic and interdisciplinary research. The association was co-founded by MTU in 2005. It brings industry and science together under one roof with a shared focus on exploring the socioeconomic, political and ecological aspects of aviation, designing visionary aircraft and engine systems, unearthing promising technologies for the future and carrying out knowledge management.

Investment in research and development

Research and development

			Change against previous year	
in € million	2024	2023	in € million	in %
Commercial engine business (OEM)	249	239	11	4.6
Military engine business (OEM)	88	58	31	53.1
Commercial maintenance business (MRO)	5	10	–5	–50.2
Total research and development expenses	**342**	**306**	**37**	**11.9**
Refund of research and development expenses	–112	–83	–29	–34.5
Research and development expenses – own contribution	**231**	**223**	**8**	**3.6**
Expenditure meeting recognition criteria for intangible assets				
Commercial and military engine business (OEM)	–93	–77	–16	–20.3
Amortization of previously capitalized development expenses	90	32	58	>100
Research and development expenses – effect on profit or loss	**228**	**178**	**51**	**28.4**
thereof: in gross profit	122	64	59	92.0
thereof: in functional costs – research and development	106	114	–8	–7.1

Refund of research and development expenses principally comprises public grants for research and development for quieter and more fuel-efficient aircraft engines.

The Group funds its own contribution of the research and development expenses. If the criteria for capitalization are met, the development expenses are recognized as internally generated intangible assets or as other assets if consideration is paid to the consortium leader (OEM) (acquired development work), and subsequently amortized through revenue or the cost of goods sold. *Note 14. Intangible assets and goodwill in the Notes to the consolidated financial statements* contains further information on capitalized research and development expenses for internally generated developments and *Note 17. Acquired program assets, development work and other assets* provides further information on acquired development work.

Investment in intangible assets in the OEM segment (commercial and military engine business) which meets the capitalization criteria relates principally to the Pratt & Whitney GTF™ engine family and the PW800 program.

The amortization of capitalized development costs recognized through revenue or the cost of goods sold mainly relates to the Pratt & Whitney GTF™ engine family. In the financial year, program shares in the PW1500G/PW1900G were aligned with the corresponding MTU scope of services and supplies. As a result, previously paid program entry fees and acquired development were refunded on a pro-rata basis. Furthermore, the increase in amortization during the year under review is also linked to impairment losses in the amount of €21 million recognized for capitalized development expenses for the T408 military engine program for the Sikorsky CH-53K heavy-duty cargo helicopter (in the previous year, no impairment losses were recognized for capitalized internally generated or acquired development work). Further information on the special items in the intangible assets can be found in *Note 12. Additional disclosures relating to the income statement*.

Economic report

Macroeconomic conditions

In its October 2024 World Economic Outlook, the International Monetary Fund (IMF) declared that "the global battle against inflation is almost won." Coordinated and determined tightening of monetary policy around the world has successfully curbed inflation without triggering a global recession. After peaking at an average of 8.7% in 2022, global inflation fell to 5.7% by 2024 (source: IMF World Economic Outlook Update, January 2025). At 2.6% in the industrialized countries, it is even approaching the target, prompting some leading central banks to lower their key interest rates. The global economy proved resilient in 2024, with global GDP growth remaining almost unchanged at 3.2% compared with 3.3% in 2023.

The Eurozone continued to post the lowest growth of the three major economic regions. However, it improved moderately from 0.4% in 2023 to 0.8% in 2024. The German economy, on the other hand, shrank by an estimated 0.2% in the year under review. Growth in the United States remained stable at 2.8% after 2.9% in 2023, driven by strong private consumption bolstered by real wage increases due to falling inflation. In China, higher exports shored up industrial production. But consumer demand remained subdued and the real estate sector continued its protracted correction, slowing the country's GDP growth from 5.2% in 2023 to 4.8% in 2024.

Sector-specific conditions within the aviation industry

By early 2024 the global airline industry had staged an impressive recovery, surpassing pre-pandemic passenger numbers. Cargo traffic has also picked up significantly. According to IATA, global passenger traffic grew by 11.2% in 2024. The Asia-Pacific region saw the highest growth with an increase of 18.6%. The recovery there was boosted by the late upturn following the pandemic and rising living standards. Europe and North America recovered from the pandemic earlier and achieved comparatively lower but robust growth of 8.7% and 5.3%, respectively. Cargo traffic also rose sharply by 11.8% in 2024, driven by surging demand from online business in the USA and Europe and the ongoing capacity limitations in ocean shipping (source: IATA).

Thanks to strong growth in air traffic the airline sector's revenue rose by 6.2% to U.S.$965 billion in the reporting year. The price of kerosene in 2024 averaged U.S.$99 per barrel – a marked decline on 2023 (U.S.$112). Despite stronger demand and lower kerosene prices, higher wage costs and maintenance expenses prevented airlines from increasing their net profit. Instead, global net profit among airlines fell significantly from U.S.$35.2 billion to U.S.$31.5 billion.

Airbus and Boeing delivered 1,114 commercial aircraft in 2024, slightly below the previous year's 1,263 (source: Cirium). Supply chain issues continued to constrain production in most of these two manufacturers' programs. Boeing was also confronted with two drastic setbacks in 2024, causing deliveries in 2024 to plummet by 34% to 348 aircraft. First, the U.S. Federal Aviation Administration (FAA) ordered a production quality improvement program at Boeing, capping 737 Max production at a rate of 38 aircraft per month in order to supervise quality assurance following an incident in January 2024. Second, the U.S. manufacturer had to completely halt production of some models due to a two-month strike. In contrast to Boeing, Airbus increased its deliveries from 735 aircraft in 2023 to 766 in 2024. In the commercial aircraft programs in which MTU is involved in the new components business for engines as part of its partnership with Pratt & Whitney, deliveries of the A320neo family rose from 571 to 602 units and A220 deliveries from 68 to 75. However, deliveries of the Boeing 787 fell from 73 to 51. Lower-than-forecast production of new aircraft such as the Boeing 737 Max, A320neo and Boeing 787 led to older models such as the A320ceo, the Boeing 737NG and Boeing 767 remaining in service for longer. This drove up demand for aftermarket services for these aircraft models' engines, such as the V2500, the CFM56 and the CF6-80C. While the GTF fleet management plan is a capacity and financial burden, the continued operation of older engines constitutes a financial boost for MTU, both in its spare parts (OEM) segment and its commercial maintenance and repair (MRO) segment.

Financial situation

The following explanatory comments and analyses are based on the audited MTU consolidated financial statements for the fiscal year ended December 31, 2024. The consolidated financial statements were drawn up in accordance with the International Financial Reporting Standards (IFRSs) issued by the International Accounting Standards Board (IASB), to the extent that these have been adopted by the European Union.

In accordance with IFRS requirements, new and revised standards and interpretations were applied for the first time in the financial statements for 2024. This did not have a material impact on the net assets, financial position and results of operations of the Group. They are described in detail in the *Notes to the consolidated financial statements under Accounting standards, interpretations and amended standards and interpretations applied for the first time in fiscal year 2024*.

The exchange rates used for translating foreign currencies relevant to the MTU Group into the reporting currency "Euro" are the following official rates set by the European Central Bank:

Foreign currency exchange rates

Currency	ISO code	Rate at reporting date		Average rate	
		Dec. 31, 2024 € 1 =	Dec. 31, 2023 € 1 =	**2024 € 1 =**	2023 € 1 =
U.S. dollar	USD	1.0389	1.1050	1.0824	1.0813
Canadian dollar	CAD	1.4948	1.4642	1.4821	1.4595
Chinese renminbi	CNY	7.5833	7.8509	7.7875	7.6600
Polish zloty	PLN	4.2750	4.3395	4.3058	4.5420
Serbian dinar	RSD	117.0149	117.1737	117.0851	117.2491

Results of operations

Group

Consolidated income statement

in € million	2024	2023	Change against previous year in € million	in %
Revenue	**7,411**	**5,363**	**2,048**	**38.2**
Cost of goods sold	-6,178	-5,245	-933	-17.8
Gross profit	**1,233**	**118**	**1,115**	**>100**
Functional costs	-372	-364	-8	-2.2
Other operating income/expenses	-21	-14	-7	-48.3
Profit/loss of companies accounted for using the equity method and of equity investments	115	99	16	15.8
Earnings before interest and taxes (EBIT)	**955**	**-161**	**1,116**	**>100**
Net financial income/expense	-60	-45	-15	-34.2
Earnings before income taxes	**895**	**-205**	**1,101**	**>100**
Income taxes	-253	108	-361	<-100
Net income	**642**	**-97**	**739**	**>100**
Basic earnings per share (in €)	11.77	-1.90	13.67	>100
Diluted earnings per share (in €)	11.53	-1.90	13.43	>100
Earnings before interest and taxes, depreciation and amortization (EBITDA)	**1,423**	**171**	**1,253**	**>100**

Revenue

Revenue developed very positively in both the commercial and military engine business (OEM) and the commercial maintenance and repair business (MRO).

In the commercial and military engine business (OEM), revenue rose by €1,205 million from €1,249 million to €2,454 million. Figures for the previous year had been affected by the recognition of risk provisions in view of the exceptional charges arising from the GTF™ fleet management plan, which primarily resulted in a €917 million reduction in revenue. The operating business continued on an upward trend in the year under review, driven mainly by the favorable performance of the GTF™ programs in the new engine business and positive developments in the military business. Considering the fact that billing in U.S. dollars is customary in the aviation sector, revenue development was materially unaffected by movements in the U.S. dollar exchange rate, which averaged U.S.$1.08 per euro, almost unchanged from the previous year. In contrast, revenue was adversely affected by the measurement of refund liabilities in connection with stakes in commercial engine programs based on the closing-date exchange rate, which was U.S.$1.11 per euro on December 31, 2023 and U.S.$1.04 per euro at the reporting date.

Revenue from the commercial maintenance and repair business (MRO) also developed favorably, rising by €841 million from €4,225 million in the previous year to €5,066 million (before consolidation). This development was driven particularly by additional maintenance business from the IAE LLC and Pratt & Whitney subcontract as part of the GTF™ fleet management plan, as well as by regular aftermarket business. Revenue also benefited from growing maintenance and repair business for the GE90, GEnx, CF34 and V2500 engine families and the engine leasing business.

Cost of goods sold and gross profit

The cost of goods sold increased in comparison to the previous year in accordance with the rise in business volume. With regard to gross profit, the commercial and military engine business (OEM) on the whole benefited from a more favorable revenue mix in the new engine business relative to the previous year, with a higher proportion of spare and lease engines plus high demand for spare parts, which was driven by the ongoing use of engines used to run more mature aircraft models like the A320ceo and Boeing 767. In view of the year-on-year comparison, it is worth noting that gross profit in the year under review was hampered by revenue deductions and expenses in the amount of €12 million and €9 million respectively resulting from impairment losses for the stake in the T408 program linked to its business development. A further point to be noted is the agreement made in the reporting year to adjust the stake in the PW1500G/PW1900G program in line with the effective scope of service and supply. This led to an adjustment of assets and accrued liabilities arising from these programs, contributing U.S.$34 million to the gross profit.

With regard to the commercial maintenance and repair business (MRO), gross profit benefited from the revenue mix achieved during the year under review. In comparison to the previous year, there was an increase to the relative proportion of gross profit contributed by both the higher-margin, OEM-independent maintenance and repair business and the engine leasing and asset management business.

On the whole – and particularly in view of the significant one-off effects on revenue and cost of goods sold arising from the GTF™ fleet management plan – gross profit rose significantly. The gross margin, defined as the rate of revenue minus cost of goods sold to total revenue, rose from 2.2% in the previous year to 16.6% in the year under review.

Earnings before interest and taxes (EBIT)

The very positive EBIT trend during the reporting period compared to the previous year, which was heavily affected by the one-off effects related to the GTF™ fleet management plan, corresponds to the gross profit trend outlined above and was also, to a lesser extent, boosted by improved results from companies accounted for using the equity method. Burdens resulted from the course of business and inflation-related development of functional costs and the balance of other operating income and expenses. The latter were particularly influenced by the development of non-periodic income, which resulted from the reimbursement of foreign transaction taxes in the reporting year and from insurance reimbursements in the previous year.

Net financial income/expense

The financial result deteriorated in the reporting year. In particular, the increase in interest expenses for the corporate bond placed in 2024, the promissory note loans issued and the slight impairment of assets from the syndicated participation in sales financing were only partially offset by higher interest income from liquidity management.

Earnings before taxes (EBT)

The very positive development of earnings before tax (EBT) during the reporting year compared to the previous year, which was significantly impacted by one-off effects from the GTF™ fleet management plan, corresponds to the very positive EBIT trend.

Income taxes

In line with the positive earnings before taxes, tax expenses amounted to €253 million in the reporting year (previous year: tax income of €108 million). The high expenses for the GTF™ fleet management plan led to deferred tax income of €300 million in the previous year. The effective Group tax rate, calculated on the basis of earnings before taxes, was 28.3% (previous year: 52.8%). Information on the reconciliation of the expected tax expense to the effective tax expense is provided in *Note 10. Income taxes* in the Notes to the consolidated financial statements.

Net income

In relation to the previous year, which was heavily affected by one-off effects arising from the GTF™ fleet management plant, net income rose significantly to €642 million (previous year: €-97 million) in accordance with the development of EBIT and EBT.

Consolidated statement of comprehensive income

In the consolidated statement of comprehensive income, net income is reconciled with the total comprehensive income for the period of €617 million (previous year: €-50 million).

Taking deferred taxes into account, the income and expenses directly recognized in other comprehensive income in the reporting period mainly relate to the decrease of €79 million in the fair value of hedging instruments (previous year: increase in fair values of €91 million), partially offset by exchange rate gains of €48 million on the translation of foreign operations (previous year: exchange rate losses of €10 million) and actuarial gains of €7 million from pension obligations and plan assets (previous year: actuarial losses of €34 million).

Earnings per share

In accordance with the very positive net income trend for the reporting period in comparison with the previous year, which was significantly impacted by the one-off effects arising from the GTF™ fleet management plan, the basic earnings per share amounted to €11.77 (prior year: €-1.90).

Diluted earnings per share amounted to €11.53 (previous year: €-1.90) due to the inclusion of the diluting effect of the shares that could potentially be issued through the convertible bond 2019.

Order backlog

MTU's order backlog consists of firm customer orders that commit the Group to delivering products or providing services. As of December 31, 2024, the order backlog (after consolidation) amounted to €28.6 billion (previous year: €24.4 billion). Compared with the previous year, the order backlog increased in both the MRO segment and the OEM segment. The exchange rate of U.S.$1.04 per euro at the reporting date compared with U.S.$1.11 per euro in the previous year also contributed to the increase.

Reconciliation to adjusted key financial performance figures – Results of operations

The reconciliation of the consolidated income statement serves to factor special items, especially those amounts recognized in operating results that are material and, above all, refer to other periods, out of the key financial performance figures of the Group and its segments. The aim is to measure the success of managing operating activities in the reporting period and, at the same time, to provide financial information for efficient comparison with different periods and companies. The adjusted figures do not come under the provisions of the International Financial Reporting Standards (IFRSs); they are to be seen as an addition to the key financial performance figures reported pursuant to IFRS in the sense of alternative performance measures (APM).

For its description of the results of operations, MTU reports the following adjusted financial performance figures:

- adjusted revenue (revenue, adjusted)
- adjusted earnings before interest and taxes (EBIT, adjusted), the adjusted EBIT margin (EBIT margin, adjusted)
- adjusted net income (net income, adjusted)

The reference to adjusted key financial performance figures within the approved remuneration system for the Board of Management is always based on the Supervisory Board's approval of the calculation methods described below.

Adjusted revenue

To determine the adjusted revenue figure, the revenue calculated in accordance with IFRS standards is adjusted for the following special items in view of the aforementioned aim of providing adjusted financial KPIs:

- "Effects from the increase in the stake in IAE-V2500": The increase in MTU's stake in the Pratt & Whitney IAE-V2500 program in 2012 was accounted for as the addition of a program asset. Since then, this asset has been amortized over the expected remaining useful life of the program, thereby reducing revenue, and the corresponding earnings impact is eliminated as a special item in the reconciliation to adjusted revenue.
- "Effects from the GTF™ fleet management plan": In 2023, significant compensation for PW1100G JM program customers was approved as part of the GTF™ fleet management plan. Based on its stake in the PW1100G JM program consortium, MTU has obligations to the OEM Pratt & Whitney and accrued refund liabilities for this purpose, thereby reducing revenue. Impacts on profit and loss related to the initial recognition and any subsequent measurement of these refund liabilities are eliminated as a special item in the reconciliation to adjusted revenue.
- "Significant non-period earnings impacts": Taking the materiality criterion defined for the reporting period (threshold: €45 million) into account, significant non-period revenue impacts are eliminated for the reconciliation to adjusted revenue. This was primarily applied to significant revenue impacts, particularly those related to stakes in engine program consortia due to impairment losses, legal/litigation risks and changes in the consolidated group. The materiality criterion in the form of a threshold was defined from fiscal year 2024 onward. Accordingly, the reconciliation for the prior-year period is made independently in accordance with the prior-year reporting rules.

Adjusted EBIT and adjusted EBIT margin

To determine the adjusted EBIT, the EBIT result calculated in accordance with IFRS standards is adjusted for the following special items in view of the aforementioned aim of providing adjusted financial KPIs:

- "Effects of the purchase price allocation": As of January 1, 2004, MTU passed into the ownership of Kohlberg Kravis Roberts & Co. Ltd. (KKR), following the latter's purchase of 100% of the MTU shares from the then DaimlerChrysler AG. In the context of the acquisition, assets, liabilities and contingent liabilities were identified in accordance with IFRS 3 and measured at fair value. Since then, the identified intangible assets, in particular, have resulted in substantial amortization. The resulting earnings impacts are eliminated as special items in the reconciliation to adjusted EBIT.
- "Effects from the increase in the stake in IAE-V2500": The increase in MTU's stake in the Pratt & Whitney IAE-V2500 program in 2012 was accounted for as the addition of a program asset. Since then, this asset has been amortized over the expected remaining useful life of the program, thereby reducing revenue, and the corresponding earnings impact is eliminated as a special item in the reconciliation to adjusted EBIT.
- "Effects from the Geared Turbofan fleet management plan": In 2023, significant compensation for PW1100G JM program customers was approved as part of the GTF™ fleet management plan. Based on its stake in the PW1100G JM program consortium, MTU has obligations to the OEM Pratt & Whitney and accrued refund liabilities for this purpose, thereby reducing revenue. Impacts on profit and loss related to the initial recognition and any subsequent measurement of these refund liabilities are eliminated as a special item in the reconciliation to adjusted EBIT.
- "Significant non-period earnings impacts": Taking the materiality criterion defined for the reporting period (threshold: €45 million) into account, significant non-period earnings impacts are eliminated for the reconciliation to adjusted EBIT. This was primarily applied to significant earnings impacts due to impairment losses, legal/litigation risks, restructuring programs and changes in the consolidated group. The materiality criterion in the form of a threshold was defined from fiscal year 2024 onward. Accordingly, the reconciliation for the prior-year period is made independently in accordance with the prior-year reporting rules.

The adjusted EBIT margin is calculated as the proportion of adjusted EBIT to adjusted revenue and expressed as a percentage.

Adjusted net income

To determine the adjusted EBIT, the EBIT result calculated in accordance with IFRS standards is adjusted for the following special items in view of the aforementioned aim of providing adjusted financial KPIs:

- "Effects of the purchase price allocation": As of January 1, 2004, MTU passed into the ownership of Kohlberg Kravis Roberts & Co. Ltd. (KKR), following the latter's purchase of 100% of the MTU shares from the then DaimlerChrysler AG. In the context of the acquisition, assets, liabilities and contingent liabilities were identified in accordance with IFRS 3 and measured at fair value. Since then, the identified intangible assets, in particular, have resulted in substantial amortization. The resulting earnings impacts are eliminated as special items in the reconciliation to adjusted EBIT.
- "Effects from the increase in the stake in IAE-V2500": The increase in MTU's stake in the Pratt & Whitney IAE-V2500 program in 2012 was accounted for as the addition of a program asset. Since then, this asset has been amortized over the expected remaining useful life of the program, thereby reducing revenue, and the corresponding earnings impact is eliminated as a special item in the reconciliation to adjusted EBIT.
- "Effects from the Geared Turbofan fleet management plan": In 2023, significant compensation for PW1100G JM program customers was approved as part of the GTF™ fleet management plan. Based on its stake in the PW1100G JM program consortium, MTU has obligations to the OEM Pratt & Whitney and accrued refund liabilities for this purpose, thereby reducing revenue. Impacts on profit and loss related to the initial recognition and any subsequent measurement of these refund liabilities are eliminated as a special item in the reconciliation to adjusted EBIT.
- "Significant non-period earnings impacts": Taking the materiality criterion defined for the reporting period 2024 (threshold: €45 million) into account, significant non-period earnings impacts are eliminated for the reconciliation to adjusted EBIT. This was primarily applied to significant earnings impacts due to impairment losses, legal/litigation risks, restructuring

programs and changes in the consolidated group. The materiality criterion in the form of a threshold was defined from fiscal year 2024 onward. Accordingly, the reconciliation for the prior-year period is made independently in accordance with the prior-year reporting rules.

In the following, net interest income/expense and the interest shares in other financial income/expense, which are mainly connected with provisions for pensions and liabilities from pensions and plan assets, are added to adjusted EBIT. None of the other components of financial income/expense, especially those that are influenced by foreign currency effects, such as the effects of exchange-rate hedging, are taken into account. Lastly, "normalized" taxes on income and earnings are then deducted from the adjusted earnings before tax, which then define the adjusted net income. "Normalized taxes" are calculated using a normalized Group tax rate of 27%, whereby the profit/loss of companies accounted for using the equity method included in the adjusted earnings before tax do not form part of the tax base.

Reconciliation of the consolidated income statement

in € million	2024 As reported	2024 Special item	2024 Adjusted figures	2023 As reported	2023 Special item	2023 Adjusted figures
Revenue	**7,411**	**77**	**7,488**	**5,363**	**963**	**6,326**
thereof: special item "effects from GTF™ fleet management plan" (OEM segment)		52	52		917	917
thereof: special item "significant non-period earnings impacts" (provision for consortial major litigation and claims – OEM segment)[1]					23	23
thereof: special item "effects from increase in the stake in IAE/V2500" (OEM segment)		25	25		23	23
Cost of goods sold	-6,178	19	-6,159	-5,245	34	-5,211
thereof: special item "effects of purchase price allocation" (OEM segment)		19	19		19	19
thereof: special item "effects from GTF™ fleet management plan" (OEM segment)					15	15
Gross profit	**1,233**	**95**	**1,329**	**118**	**997**	**1,115**
Research and development expenses	-106		-106	-114		-114
Selling expenses	-138		-138	-141		-141
General administrative expenses	-128		-128	-109		-109
Other operating income and expenses	-21		-21	-14		-14
thereof: special item "significant non-period earnings impacts" (impairment losses of assets due to Russia-Ukraine war – MRO segment)[1]					-21	-21
Profit/loss of companies accounted for using the equity method and of equity investments	115		115	99		99
thereof: special item "significant non-period earnings impacts" (impairment losses of assets due to Russia-Ukraine war – MRO segment)[1]					-0	-0
thereof: special item "significant non-period earnings impacts" (provision for consortial major litigation and claims – MRO segment)[1]					3	3
Earnings before interest and taxes (EBIT)	**955**	**95**	**1,050**	**-161**	**979**	**818**
Net interest income/expense	-22		-22	-12		-12
Other financial income – interest included in the measurement of pensions	-27		-27	-29		-29
Other financial income/expense – miscellaneous (e.g. measurement of foreign currency holdings)	-11	11	0	-4	4	0
Earnings before income taxes	**895**	**106**	**1,002**	**-205**	**983**	**777**
Income taxes	-253		-253	108		108
Adjustment based on normalized income taxes		16	16		-292	-292
Net income	**642**	**122**	**764**	**-97**	**691**	**594**

[1] The materiality criterion in the sense of a threshold has been defined from fiscal year 2024 onwards. As such, reconciliation for previous reporting periods took place in accordance with the previous year's reporting process, independently of this criterion.

The adjusted net income attributable to shareholders of MTU Aero Engines AG amounted to €755 million (previous year: €588 million).

Based on these parameters, adjusted earnings per share amounted to €14.04 (previous year: €10.96).

Reconciliation of EBIT to EBIT adjusted for special items

in € million	2024	2023
Earnings before interest and taxes (EBIT)	**955**	**-161**
thereof: special item "effects of purchase price allocation" (OEM segment)	19	19
thereof: special item "effects from increase in the stake in IAE-V2500" (OEM segment)	25	23
thereof: special item "GTF™ fleet management plan" (OEM segment)	52	932
thereof: special item "significant non-period earnings impacts" (impairment losses of assets due to Russia-Ukraine war – MRO segment)[1]		-21
thereof: special item "significant non-period earnings impacts" (provision for consortial major litigation and claims – both segments)[1]		26
Adjusted earnings before interest and taxes (adjusted EBIT)	**1,050**	**818**

[1] The materiality criterion in the sense of a threshold has been defined from fiscal year 2024 onwards. As such, reconciliation for previous reporting periods took place in accordance with the previous year's reporting process, independently of this criterion.

Based on the adjusted revenue and adjusted EBIT outlined above, the adjusted EBIT margin is 14.0% (previous year: 12.9%).

OEM-segment

Revenue

In the commercial and military engine business (OEM), revenue (before consolidation) rose by €1,205 million from €1,249 million to €2,454 million. The previous year's figures were affected by the exceptional charges for the GTF™ fleet management plan, which reduced revenue by €917 million. The operating business continued on an upward trend, driven particularly by the favorable performance of the GTF™ programs in the new engine business and positive developments in the military business. Currency effects related to the measurement of provisions for the GTF™ fleet management plan had a negative effect of €52 million on revenue. Adjusted revenue was €2,531 million (previous year: €2,212 million). Considering the fact that billing in U.S. dollars is customary in the aviation sector, revenue development was materially unaffected by movements in the U.S. dollar exchange rate, which averaged U.S.$1.08 per euro, unchanged from the previous year. In contrast, revenue was adversely affected by the measurement of refund liabilities in connection with stakes in commercial engine programs in view of the closing-date exchange rate, which was U.S.$1.11 per euro on December 31, 2023 and U.S.$1.04 per euro at the reporting date.

Rising by €1,131 million to €1,842 million (158.9%), revenue in the commercial engine business increased in comparison to the previous year, which was affected by charges from the GTF™ fleet management plan amounting to €917 million. Adjusted revenue in the commercial engines business likewise developed positively. In all, it increased to €1,919 million (previous year: €1,675 million). Development of the (adjusted) revenue in the commercial engine business was driven by the stakes in the PW1500G/PW1900G, GEnx and PW1100G-JM programs.

Revenue in the military engine business was €612 million, an increase of €74 million (13.8%) from the previous year's level of €538 million. The main sources of revenue in the reporting period were the Eurofighter EJ200 engine, the RB199 engine for the Panavia Tornado and the TP400-D6 engine for the Airbus A400M.

Adjusted revenue and adjusted EBIT – OEM

in € million	2024	2023	Change against previous year in € million	Change against previous year in %
Revenue	**2,454**	**1,249**	**1,205**	**96.4**
Cost of goods sold	-1,708	-1,515	-193	-12.8
Gross profit	**745**	**-266**	**1,011**	**>100**
Gross margin (in %)	30.4	-21.3		
Adjusted revenue[1]	**2,531**	**2,212**	**318**	**14.4**
EBIT	**517**	**-508**	**1,025**	**>100**
./. Adjusted special items[1]	95	996	-901	-90.4
Adjusted EBIT	**612**	**488**	**124**	**25.3**
Adjusted EBIT margin (in %)	24.2	22.1		

[1] For adjustments, see the table "Reconciliation of the consolidated income statement".

Earnings before interest and taxes

The rise in EBIT compared to the previous year – which was affected by charges amounting to €932 million from the GTF™ fleet management plan – benefited in particular from the revenue mix for the commercial series business combined with a high proportion of spare and lease engine sales. It also benefited from the growing military business and concomitant margin improvements. On the other hand, the U.S. dollar exchange rate at the reporting date had a negative impact on fair value measurement in the reporting period, particularly with respect to refund liabilities for invoice corrections relating to stakes in commercial engine programs (risk and revenue sharing). The trend for adjusted EBIT is more moderate as the effects from the GTF™ fleet management plan in the previous year have been eliminated.

Capital expenditure

Capital expenditure on intangible assets amounted to €83 million (previous year: €78 million) and essentially related to the capitalization of internally generated development work for the Pratt & Whitney GTF engine family and for acquired software. Capital expenditure on property, plant and equipment amounted to €263 million (previous year: €218 million) and mainly related to assets under construction as part of the expansion of production capacity and the construction of the development center, technical equipment, plant and machinery, and other equipment, operational and office equipment. At €53 million (previous year: €25 million), capital expenditure on acquired program assets and acquired development work and other assets mainly related to the Pratt & Whitney GTF engine family and the increase in the IAE/V2500 stake. Information about investments in financial assets is provided under *Financial position*.

Employees

The average number of employees in the OEM segment increased by 335 to 7,701 (previous year: 7,366).

MRO segment

Revenue

In the commercial maintenance and repair business, revenue (before consolidation) increased by €841 million year-on-year to €5,066 million (previous year: €4,225 million). There was a significant increase in both revenue from the MRO segment's core business that is not tied to OEMs and revenue from orders placed by OEMs, in particular for the PW1100G-JM program, including in relation to the GTF™ fleet management plan. The ratio was roughly 69% to 31% during the reporting period. The main revenue drivers in the core MRO business were the GE90 engine for the Boeing 777, the V2500 for the A320ceo family, and the CF34 business jet and regional jet engine. This segment also benefited from growth in engine leasing business.

Revenue and adjusted EBIT – MRO

in € million	2024	2023	Change against previous year in € million	Change against previous year in %
Revenue	**5,066**	**4,225**	**841**	**19.9**
Cost of goods sold	-4,581	-3,842	-739	-19.2
Gross profit	**485**	**383**	**103**	**26.8**
Gross margin (in %)	9.6	9.1		
Adjusted revenue	**5,066**	**4,225**	**841**	**19.9**
EBIT	**438**	**346**	**92**	**26.6**
./. Adjusted special items (see reconciliation of adjusted key performance figures - Result of operations)	0	-18	18	>100
Adjusted EBIT	**438**	**329**	**110**	**33.4**
Adjusted EBIT margin (in %)	8.7	7.8		

Adjusted earnings before interest and taxes (adjusted EBIT)

The lower increase in the cost of goods sold compared to (adjusted) revenue improved the gross margin from 9.1% in the previous year to 9.6% in the reporting period. Both EBIT and adjusted EBIT improved compared to the previous year, driven particularly by the growth in the high-margin engine leasing and asset management business and the favorable revenue mix for and within the core MRO business. Furthermore, earnings from companies accounted for using the equity method improved compared to the previous year, while other operating income fell. In the previous year, these items were related to insurance settlements for consequential damage from the war between Russia and Ukraine.

Capital expenditure

Capital expenditure on intangible assets and property, plant and equipment rose by €225 million to €440 million (previous year: €215 million). This was caused primarily by MTU's high capital expenditure in the form of advance payments for the acquisition of additional stakes in MRO programs and investments in the growing field of engine leasing. Furthermore, MTU also invested in the expansion and replacement of production capacity, particularly at it sites in Germany. Information about investments in financial assets is provided under *Financial position*.

Employees

The average number of employees in the MRO segment increased by 284 to 4,807 (previous year: 4,523).

Financial position

In the reporting year, MTU raised two promissory notes totaling €300 million and successfully placed a corporate bond with a total nominal value of €750 million for general corporate financing and to refinance the existing corporate bond due in 2025 ahead of schedule.

Principles and objectives of financial management

The main objectives of financial management are efficiently ensuring that the Group has adequate liquidity or financing to avoid financial risks and safeguard financial flexibility. The central Corporate Treasury & Finance department at MTU Aero Engines AG issues policies for managing interest rate, currency management and counterparty risks, financing, investing surplus liquidity and selecting suitable banks centrally for the Group.

As a rule, the cash flow from operating activities in the business segments represents the Group's main source of liquidity. Liquidity forecasts are based on the Group's operational and strategic planning, flanked by a monthly rolling (short-term) liquidity forecast. Unless regulatory or tax requirements dictate otherwise, MTU Aero Engines AG provides the necessary financing for the subsidiaries and/or subsidiaries invest their surplus liquidity with MTU Aero Engines AG. A central cash pooling system is in place for the German Group companies. This reduces the need for external borrowing and thus cash outflows for interest payments.

The limits set for counterparties are based on their long-term credit rating, their probability of default derived from this, and the size of the company. The limits set also support risk-based diversification of the credit default risk in connection with the investment of funds and the use of derivatives. The minimum requirement for treasury counterparties is an investment-grade rating. Funds are invested primarily in euro-denominated sight and time deposits, money market funds and commercial paper. Foreign currency investments are only permitted up to the level of the surplus liquidity in the respective currency; speculative investment to improve the interest yield is not permitted. The term of investments is determined by liquidity planning. The investment policy is geared to preserving value and the liquidity of the investments. The risk of changes in interest rates is negligible due to the very short nature of such investments.

MTU's financing strategy basically aims to ensure an appropriate balance sheet structure in order to maintain the investment-grade credit rating with rating agencies.

To achieve this target, MTU uses a variety of internal and external financing instruments, including occupational pension plans, bonds, credit facilities and leasing models. For information on the Group's capacity to raise funds through authorized and contingent capital, please refer to *Note 24. Equity in the Notes to the consolidated financial statements*.

The *Risk report* and *Note 35. Financial risk in the Notes to the consolidated financial statements* provide information on MTU's approach to the financial risks inherent in financing and measurement, the methods used to hedge interest rate and currency risks, and price, default and liquidity risks.

Financing instruments

Material external financing sources

Type of financing	Maturity date	Currency	Interest rate
Registered bond	June 12, 2028	€	Fixed interest rate
Corporate bond	July 1, 2025	€	Fixed interest rate
Corporate bond	September 18, 2031	€	Fixed interest rate
Convertible bond 2019	March 18, 2027	€	Fixed interest rate
Promissory note	April 23, 2027	€	Fixed interest rate
Promissory note	April 23, 2029	€	Fixed interest rate
Revolving credit facility	June 29, 2029	€	Euribor rate for relevant period + margin
Procurement leasing	Various	€	Fixed interest rate

In 2022, a €500 million revolving credit facility was concluded with nine banks. This had an original term of five years, ending on June 29, 2027, and has now been extended to June 29, 2029 on the basis of the available options. The credit facility had not been drawn down as of the reporting date (December 31, 2023: €0 million). As in previous years, there were no off-balance sheet financing transactions in the reporting period, such as the sale of receivables in the context of asset-backed securities, or contingent liabilities to special purpose entities.

Net financial debt

Net financial debt serves as an indicator of the MTU Group's financial situation and is defined as the difference between gross financial debt and current, interest-bearing financial assets. Compared to December 31, 2023, net debt has increased. Alongside the decrease in the cash flow from operating activities, this was attributable to higher capital expenditure, the dividend payment, the net growth in leasing liabilities and the program liabilities with financing character. The latter is the result of an agreement reached during the reporting period to significantly extend payment targets for existing refund liabilities for operative imbalance payment obligations as part of stakes in commercial programs.

Net financial debt

			Change against previous year	
in € million	Dec. 31, 2024	Dec. 31, 2023	in € million	in %
Bonds and notes	1,358	607	752	>100
Convertible bonds	492	489	4	0.7
Promissory note	308	0	308	0.0
Other financial liabilities to banks	7	7	0	1.8
Financial liabilities to related companies	2	0	2	>100
Lease liabilities	261	170	91	53.8
Program liabilities with financing character	405	294	111	37.9
thereof: arising from acquisition of stakes in engine programs	55	73	-18	-24.5
thereof: due to program participations	350	221	129	58.4
Gross financial debt	**2,833**	**1,566**	**1,268**	**80.9**
less:				
Cash and cash equivalents	1,747	883	863	97.7
Loans to third parties	26	52	-26	-50.0
Financial assets	**1,773**	**935**	**837**	**89.5**
Net financial debt	**1,061**	**631**	**430**	**68.2**

Bonds and notes

Corporate bond
On September 18, 2024, MTU Aero Engines AG issued an unsecured corporate bond with a nominal value of €750 million. The bond has a maturity of seven years until September 18, 2031, and is available in units of €1,000. The coupon is 3.875% p.a., payable annually in arrears. At the emission date, the bond was rated by Moody's (Baa3) and Fitch (BBB) and is listed on the regulated market on the Luxembourg Stock Exchange.

Promissory notes

MTU Aero Engines AG placed two promissory notes in 2024. One promissory note, which has a nominal value of €161 million and matures on April 23, 2027, has a fixed interest rate of 4.194% p.a. The second promissory note, which has a nominal value of €139 million and matures on April 23, 2029, has a fixed interest rate of 4.121% p.a. The full nominal amount of both promissory notes less the placement fees was paid to MTU on April 23, 2024. The interest on both notes is due annually in arrears on April 23. Each of the notes will be redeemed at nominal value when they mature.

Program liabilities with financing character

Financial liabilities arising from acquisition of stakes in engine programs

The purchase price agreement signed by MTU in fiscal year 2012 in order to increase its stake in the V2500 engine program by 5 percentage points to 16% made it necessary, among other things, to recognize a financial liability contingent upon the number of flight hours performed over the next 15 years by the fleet of V2500 engines in service at the time of the stake increase.

The liability matures in 2027 and, as of the closing date, reflects a nominal amount of U.S.$56 million (previous year: U.S.$80 million). Translated at the closing rate, that was €54 million (previous year: €72 million). The carrying amount of the purchase price liability was €52 million as of December 31, 2024 (previous year: €69 million).

Imbalance payments within the scope of stakes in programs
In both the reporting period and in previous years, it was possible to reach an agreement with an OEM to extent payment targets for imbalance payment obligations related to stakes in commercial engine programs.

The agreements concluded in previous years defined an imbalance payment obligation amount with a nominal value of U.S.$265 million and a payment plan comprising fixed installments over a six-year period. In accordance with the contractual payment plan, a total of U.S.$89 million was repaid in the year under review. The agreements concluded in the year under review set out two additional imbalance payment obligation amounts with a nominal value of U.S.$100 million each and each with a payment plan comprising fixed installments over a five-year period.

Before these agreements were made, the aforementioned imbalance payment obligations were included in the short-term refund liabilities, taking into account the inherent estimations regarding amount and maturity existing at that time. Based on the agreements, the liabilities were reclassified from refund liabilities to financial liabilities.

Contingent liabilities and other financial obligations

As of the reporting date, contingent liabilities amounted to €414 million (previous year: €408 million), in particular respect of participation in legal and litigation cost risks relating to stakes in commercial engine programs, as well as guarantees and warranties assumed. In addition, as of the reporting date, there were unutilized financing commitments for equity investments in the form of committed capital contributions or shareholder loans totaling €150 million (previous year: €141 million) and further commitments to program customers relating to shares in sales financing commitments by the respective consortium leader in respect of commercial engine programs. As of the reporting date, the unutilized nominal amount of such financing commitments was €889 million (previous year: €831 million). As part of its ordinary activities, the Group furthermore incurred other financial liabilities comprising purchase commitments, including those related to agreements on the acquisition of additional stakes in MRO programs, and future cash outflows for leases. These are additional to the liabilities reported in the consolidated balance sheet at the end of the reporting period. As such, they relate to contractual obligations to acquire intangible assets, property, plant and equipment, and leased items.

Please refer to *Note 37. Contingent liabilities and other financial obligations in the Notes to the consolidated financial statements* for detailed information on contingent liabilities and other financial obligations.

Liquidity analysis

Cash flow from operating activities

Cash flow from operating activities decreased in relation to the previous year, in both the OEM and MRO segments, particularly because more funds were tied up in working capital due to the growth in business. This effect was intensified by the rise in pre-financed maintenance and repair services during the reporting period, which was linked to the GTF™ fleet management plan. This also resulted in charges from the participation in compensation payments to PW1100G-JM program customers. These developments were offset to a proportionate extent by the development of received profit distributions compared to the previous year and the development of income tax paid.

Cash flow from investing activities

Capital expenditure on intangible assets amounted to €181 million (previous year: €80 million) and mainly comprised advance payments for the acquisition of additional stakes in MRO programs and capital expenditure on development work for the Pratt & Whitney GTF™ engine family. Capital expenditure on property, plant and equipment, reduced by the proceeds from asset disposals, amounted to €401 million, compared with €302 million in the previous year. This trend was driven primarily by the expansion of the engine leasing business through the acquisition of used engines, as well as by investment in additional and replacement production capacity, particularly at the company's German sites. The net result of cash inflows and outflows relating to financial assets is mainly attributable to net cash inflows from consortia stakes in interest-bearing sales financing for aircraft and engine financing, from the acquisition of the automation and measurement technology specialist 3D.aero, and from loans and capital contributions to finance the expansion of the Ceramic Coating Center S.A.S. joint venture with Safran Aero Engines. The rise in capital expenditure on acquired program assets, development work and other assets compared to the previous year was caused by stakes in the Pratt & Whitney GTF™ engine family.

Cash flow from financing activities

Cash inflow in the reporting period mainly came from issuing the corporate bond, amounting to €742 million (previous year: €0 million) and raising the promissory notes, amounting to €299 million (previous year: €0 million). This was partially offset by the dividend payment of €108 million (previous year: €171 million) and payments of €69 million for lease liabilities (previous year: €81 million).

Change to cash and cash equivalents

The increase in cash and cash equivalents is affected primarily by the issuing of the corporate bond and the promissory notes. In addition, cash outflows for investing activities and other outflows for financing activities more than offset the cash inflows from operating activities in the reporting year.

Reconciliation to adjusted key financial performance figures – Financial position

The reconciliation of the cash flow statement serves to factor special items, especially those amounts recognized in non-recurring cash flows that are material and, above all, refer to other periods, out of the key financial performance figures of the Group and its segments. The aim is to measure the success of managing operating activities in the reporting period and, on the other hand, provide financial information for efficient comparison with different periods and companies. The adjusted liquidity figures do not come under the provisions of the International Financial Reporting Standards (IFRSs); they are to be seen as an addition to the key financial indicators reported pursuant to IFRS in the sense of alternative performance measures (APM).

With regard to its liquidity analysis, MTU reports the adjusted financial KPI: adjusted free cash flow (free cash flow (adjusted)).

Adjusted free cash flow

MTU determines its adjusted free cash flow by combining its cash flows from operating activities with its cash flows from investment activities, as calculated in accordance with IFRS regulations. In order to meet the aforementioned aim of providing adjusted financial performance indicators, the following non-recurring cash flows were eliminated from this total:

- "Effects from liquidity management": Cash flows related to interest-bearing, non-speculative financial investments within the scope of liquidity management.
- "Effects from sales financing": Cash flows related to participation in interest-bearing sales financing arrangements.
- "Significant non-period cash flows": Taking the materiality criterion defined for the reporting period (threshold: €45 million) into account, significant non-period cash flows were eliminated for the reconciliation to adjusted free cash flow. This was primarily applied to cash flows related to changes in the consolidated group (M&A activities), stakes in OEM engine programs (new entry, stake increases, sale), and changes to stakes in MRO programs (new

entry, stake increases, sale). The materiality criterion in the form of a threshold was defined from fiscal year 2024 onward. Accordingly, the reconciliation for the prior-year period is made independently in accordance with the prior-year reporting rules.

Reconciliation of the cash flow statement

in € million	2024 As reported	2024 Non-recurring items	2024 Adjusted figures	2023 As reported	2023 Non-recurring items	2023 Adjusted figures
Cash flow from operating activities	**714**		**714**	**777**		**777**
Cash flow from investing activities	**-603**	**73**	**-531**	**-420**	**-5**	**-426**
thereof: "effects from sales financing"		-24	-24		-5	-5
thereof: "significant non-period cash flows" (Prepayments for MRO program shares [new entry])		96	96			0
Free cash flow	**110**	**73**	**183**	**357**	**-5**	**352**

Net assets

Changes in balance sheet items

Consolidated balance sheet of the MTU Group

	Dec. 31, 2024		Dec. 31, 2023		Change against previous year	
in € million	in € million	in %	in € million	in %	in € million	in %
Assets						
Non-current assets						
Intangible assets & goodwill	1,313	10.5	1,200	11.8	113	9.5
Property, plant and equipment	1,767	14.2	1,501	14.7	266	17.7
Financial assets	830	6.6	775	7.6	55	7.1
Acquired program assets, development work and other assets	722	5.8	800	7.8	-78	-9.8
Deferred tax assets	333	2.7	328	3.2	4	1.3
Total non-current assets	**4,965**	**39.8**	**4,604**	**45.1**	**361**	**7.8**
Current assets						
Inventories	1,753	14.0	1,629	16.0	124	7.6
Receivables/other assets	2,695	21.6	1,839	18.0	856	46.6
Contract assets	1,325	10.6	1,248	12.2	77	6.2
Cash and cash equivalents	1,747	14.0	883	8.7	863	97.7
Total current assets	**7,519**	**60.2**	**5,599**	**54.9**	**1,920**	**34.3**
Total assets	**12,484**	**100.0**	**10,204**	**100.0**	**2,281**	**22.4**
Equity and liabilities						
Equity	**3,438**	**27.5**	**2,933**	**28.7**	**505**	**17.2**
Non-current liabilities						
Provisions	726	5.8	741	7.3	-15	-2.0
Liabilities	2,272	18.2	1,517	14.9	755	49.8
Total non-current liabilities	**2,997**	**24.0**	**2,258**	**22.1**	**740**	**32.8**
Current liabilities						
Provisions/income tax liabilities	225	1.8	196	1.9	29	14.7
Refund liabilities	3,305	26.5	3,242	31.8	63	1.9
Contract liabilities	845	6.8	735	7.2	110	15.0
Liabilities	1,674	13.4	840	8.2	834	99.3
Total current liabilities	**6,049**	**48.5**	**5,013**	**49.1**	**1,036**	**20.7**
Total equity and liabilities	**12,484**	**100.0**	**10,204**	**100.0**	**2,281**	**22.4**

Capital expenditure

Capital expenditure by class of asset

in € million	2024	2023	Change against previous year in € million	in %
Intangible assets	183	82	101	>100
Property, plant and equipment	608	429	179	41.7
Financial assets	152	144	8	5.6
Acquired program assets, development work and other assets	53	25	28	>100
Total capital expenditure	**996**	**680**	**316**	**46.4**

More information can be found in *Note 39. Consolidated segment report in the Notes to the consolidated financial statements.*

Capital expenditure on intangible assets

From total capital expenditure on intangible assets, €96 million (previous year: €0 million) relate to capital expenditure by MTU in the form of advance payments for the acquisition of additional stakes in MRO programs and €61 million (previous year: €57 million) relate to internally generated developments in the scope of participation in engine programs, particularly Pratt & Whitney GTF™ engine family programs. Detailed information on capital expenditure on intangible assets is provided in *Note 14. Intangible assets in the Notes to the consolidated financial statements*.

Capital expenditure on property, plant and equipment

Additions in the fiscal year 2024 mainly comprised advance payments and construction in progress totaling €183 million (previous year: €155 million), technical equipment, plant and machinery totaling €50 million (previous year: €24 million), and other equipment, operational and office equipment totaling €326 million (previous year: €197 million). Capital expenditure was mainly related to high investments by MTU in the growing engine leasing business as well as expansion and replacement investments, particularly at the sites in Germany. Additions to this item include the recognition of right-of-use assets relating to leases. For further information on capital expenditure on property, plant and equipment and leases, please refer to *Note 15. Property, plant and equipment* and *Note 36. Leases* in the Notes to the consolidated financial statements.

Investment in financial assets

The additions to financial assets, which amounted to €152 million, included €132 million (previous year: €112 million) resulting from the income effects of subsequent measurement of investments in companies accounted for using the equity method. Additionally, capital contributions were made in the reporting year to finance the expansion of Ceramic Coating Center SAS, a joint venture with Safran Aircraft Engines. The automation and measurement technology specialist 3D.aero was also acquired during the reporting period (not consolidated). Lastly, other cash outflows took place in relation to interest-bearing sales financing arrangements for aircraft and engines. Additional information on financial assets is included in *Note 16. Financial assets in the Notes to the consolidated financial statements*.

Capital expenditure on acquired program assets, development work and other assets

Capital expenditure on other assets based on acquired program assets or development work mainly related to the Pratt & Whitney GTF™ engine family and effects from the measurement of the increase of the share in IAE/V2500. Further information on other assets is provided in the *Notes to the consolidated financial statements under Note 17. Acquired program assets, development work and other assets.*

Assets

In the fiscal year 2024, intangible assets and goodwill increased by €113 million (previous year: increased by €49 million). This was driven mainly by advance payments for the acquisition of additional stakes in MRO programs and additions of capitalized internally generated development work in the scope of participation in engine programs, particularly Pratt & Whitney GTF™ engine family programs.

Property, plant and equipment increased by €266 million (previous year: €117 million). This was mainly due to the increase in other equipment, operational and office equipment for the growing business activities in engine leasing, investments in assets under construction to increase and replace production capacity in Germany, and the increase in technical equipment, plant and machinery for expansion investments, particularly at the sites in Germany.

The development of financial assets was supported by the positive business development at companies accounted for using the equity method. This was offset by the decline in assets related to participation in sales financing arrangements and the positive fair values of derivative financial instruments due to the US dollar exchange rate prevailing on the reporting date.

The decrease in acquired program assets, development work and other assets was caused primarily by the adjustment of stakes in the PW1500G/PW1900G program in line with MTU's scope of service and supply, as agreed during the reporting period. This adjustment resulted in the pro rate reimbursement of any program entry payments and acquired development work made until the time of adjustment. The scheduled amortization of program assets must also be taken into account.

Within the inventories, there was a business-driven increase of €129 million of raw materials and supplies to €914 million in the reporting period (previous year: €785 million), while work in progress rose by €46 million to €598 million (previous year: €552 million). Advance payments decreased by €26 million to €23 million (previous year: €49 million), and inventories of finished goods fell by €25 million to €218 million (previous year: €243 million).

Trade receivables increased by €655 million year-on-year to €1,665 million (previous year: €1,010 million). This was driven largely by a sharp rise in receivables related to the consortium share in pre-financed maintenance and repair services under the GTF™ fleet management plan. Contract assets, net of the associated contract liabilities, increased by €77 million year-on-year to €1,325 million (previous year: €1,248 million). There were also receivables from tax authorities in respect of tax refunds amounting to €63 million (previous year: €81 million).

Cash and cash equivalents increased from €883 million in the previous year to €1,747 million. This increase corresponds to the general corporate financing measures implemented during the reporting period. Cash and cash equivalents accounted for 14.0% (previous year: 8.7%) of total assets at the reporting date. For information on the cash flow statement, please refer to the section titled *Financial position – Liquidity analysis*.

Equity

Changes in equity

in € million	2024	2023
As of Jan. 1	**2,933**	**3,107**
Other comprehensive income		
Financial instruments designated as cash flow hedges	–79	91
Actuarial gains/losses on pension obligations and plan assets	7	–34
Translation differences arising from the financial statements of foreign entities	48	–10
Net income	642	–97
Dividend payment to shareholders of MTU Aero Engines AG/dividend payment to non-controlling interests	–117	–174
Issue of shares due to conversion of the convertible bonds	0	46
Sale of treasury shares under the Restricted Stock Plan (RSP)	1	2
Granting of remuneration claims in the form of equity instruments (LTI / RSP)	0	3
Changes in equity due to portfolio transactions [1]	4	–1
Total change in Group equity	**505**	**–174**
As of Dec. 31	**3,438**	**2,933**

[1] MTU subsumes here purchases and sales of participations or capital measures.

Positive changes in equity

Positive changes in equity in 2024 were mainly due to the sharp rise of €642 million in net income for the fiscal year (previous year: €-97 million). There was a further positive change in equity due to equity-increasing exchange rate differences from foreign business operations of €48 million (previous year: equity-reducing exchange rate differences of €-10 million) and due to actuarial gains of €7 million (previous year: actuarial losses of €34 million).

Negative changes in equity

Negative changes in equity were mainly due to the dividend payment to the shareholders of MTU Aero Engines AG for the fiscal year 2023, amounting €108 million (fiscal year 2022: €171 million) and the decrease of €79 million in the fair values of hedging instruments (previous year: increase of €91 million).

Liabilities

In non-current liabilities, non-current pension provisions fell by €21 million, from €713 million in the previous year to €692 million. This is due to actuarial gains resulting from a higher discount rate and a surplus of pension payments over pension expenses.

The main items in non-current liabilities are gross financial debt of €2,112 million (previous year: €1,396 million) and other provisions of €33 million (previous year: €28 million). Gross financial debt increased in the reporting period, mainly because MTU raised two promissory notes totaling €300 million and placed a corporate bond with a total nominal value of €750 million. Non-current liabilities accounted for 24.0% of total assets as of December 31, 2024 and were therefore higher than in the previous year.

The total of equity and non-current liabilities increased by €1,245 million to €6,435 million in the reporting period (previous year: €5,190 million). Furthermore, 129.6% (previous year: 112.7%) of non-current assets are financed by long-term funds.

The current provisions recognized under current liabilities are pension provisions, which at €32 million were roughly at the previous year's level (previous year: €30 million), income tax liabilities, which decreased from €37 million to €35 million, and other provisions, which increased by €29 million to €158 million. This was mainly driven by higher warranty obligations in line with business growth and risks from pending losses on onerous contracts. Refund liabilities in the amount of €3,305 million (previous year: €3,242 million) are also recognized under current liabilities. These refund liabilities include obligations arising from the stake in the approved compensation payments to PW1100G-JM program customers under the GTF™ fleet management plan during the reporting period and the previous year. The business-performance-related rise in refund liabilities – intensified by effects from the measurement as at closing date – is offset by draw-downs, particularly within the scope of the GTF™ fleet management plans, and the reclassification as financial liabilities as a result of agreements made in 2024 to extend payment targets for imbalance payment obligations to several years. Furthermore, current liabilities also include trade payables amounting to €504 million (previous year: €325 million), contract liabilities totaling €845 million (previous year: €735 million), current financial liabilities – which are driven by the reclassification of the corporate bond reaching maturity in 2025 – of €1,051 million (previous year: €395 million) and a number of other individual obligations. For further information on the GTF™ fleet management plan see *section I. Accounting principles and policies – GTF™ fleet management plan in the Notes to the consolidated financial statements*.

The equity ratio was 1.2 percentage points lower than in the previous year at 27.5% (previous year: 28.7%).

Financial performance indicators

At its Capital Market Day in November 2023, the MTU Group provided an initial outlook on its expected business development in the reporting year. This was confirmed on February 29, 2024, in connection with the announcement of the preliminary results for 2023, detailed in connection with the creation of the 2023 Annual Report and the subsequent interim reports published throughout the year.

Forecast and actual results

in € million	Actual 2024	Change 2024 - 2023 in %	Forecast for 2024 as of Oct. 15, 2024	Forecast for 2024 as of August 1, 2024	Forecast for 2024 as of March 25, 2024	Forecast for 2024 as of Feb. 29, 2024	Actual 2023
Adjusted revenue	7.488	18.4	between 7,300 and 7,500	between 7,300 and 7,500	between 7,300 and 7,500	between 7,300 and 7,500	6,326
Adjusted EBIT	1,050	28.4	slightly in excess of 1,000	around 13 % of adjusted revenue	over 12 % of adjusted revenue	-	818
Adjusted EBIT margin	14.0%	8.5	a little over 13%	around 13%	over 12%	over 12%	12.9%
Adjusted net income	764	28.8	Growth in line with adjusted EBIT	Growth in line with adjusted EBIT	Growth in line with adjusted EBIT	Growth in line with adjusted EBIT	594
Free cash flow	183	–48.0	low triple-digit € million range	low triple-digit € million range	low triple-digit € million range	low triple-digit € million range	352

Revenue forecast

On February 29, 2024, MTU issued an adjusted revenue forecast in the range of between €7,300 million and €7,500 million in 2024 (adjusted revenue 2023: €6,326 million). The revenue forecast was confirmed when the half-year financial report was published on August 1, 2024. The guidance for adjusted revenue was confirmed in the ad hoc announcement on October 15, 2024 and the publication of the third quarter figures on October 24, 2024. At the end of the year under review, adjusted revenue was recorded at €7,488 million, putting it within the forecast range of between €7,300 million and €7,500 million.

Earnings forecast

On February 29, 2024, MTU forecast an adjusted EBIT margin of more than 12% for 2024. This guidance was raised in the half-year financial statements published on August 1, 2024, and an adjusted EBIT margin of around 13% was forecast. In the ad hoc announcement on October 15, 2024 and the publication of the figures for the third quarter on October 24, 2024, the guidance for adjusted EBIT, which was based on the previously forecast EBIT margin and amounted to between €0.95 billion and €0.98 billion, was raised to just over €1 billion. At the end of the year under review, adjusted EBIT was recorded as €1,050 million (previous year: €818 million) and the adjusted EBIT margin as 14.0% (previous year: 12.9%), meaning that they met the forecast figures.

On February 29, 2024, MTU forecast that the adjusted net income would rise in 2024 in accordance with adjusted EBIT. This forecast was confirmed in the interim reports published during the course of the year. At the end of the year under review, growth of adjusted net income was recorded as 28.8%, putting it largely in line with the growth of adjusted EBIT (28.4%) and the corresponding earnings forecasts.

Free cash flow

In light of the GTF™ fleet management plan and the growth-related investments in production capacity, MTU forecast on February 29, 2024, that free cash flow for 2024 would reach a figure in low € hundred million. This forecast was confirmed when the company presented its half-year report on August 1, 2024. This forecast was once again confirmed in the ad hoc announcement on October 15, 2024 and the publication of the third quarter figures on October 24, 2024. At the end of the year under review, free cash flow was recorded at €183 million (previous year: €352 million), thus confirming the stable forecast throughout the year of a low € hundred million. In 2024, the forecast was influenced by the volatile effects of the GTF™ fleet management plan, especially in relation to compensation payments, which were communicated in this regard.

Overall assessment of business performance in 2024

In 2024, MTU's business performance was hampered by effects arising from the GTF™ fleet management plan and a challenging market environment in view of the geo-political developments and the war between Russia and Ukraine. Nevertheless, MTU's business operations remain a success story and, as a result of positive development in all of its business divisions, the company was able to reach record heights. Reported revenue increased by 38.2% to €7,411 million (previous year: €5,363 million). In the previous year, losses of €917 million from the recognition of provisions for the GTF™ fleet management plan reduced revenue in the Group and the OEM segment. The OEM segment recorded growth of 96.4% before intersegment consolidation. The MRO segment, which grew by 19.9%, contributed to higher revenue in the reporting period. Adjusted revenue for the Group amounted to €7,488 million, increasing by 18.4% compared to the previous year. As the most significant non-recurring factor, revenue-reducing effects related to refund liabilities for the GTF™ fleet management plan were eliminated in this regard.

In 2024, MTU increased adjusted EBIT in both the OEM and the MRO segment. Adjusted EBIT was €1,050 million (previous year: €818 million). The adjusted EBIT margin was 14.0% (previous year: 12.9%).

MTU continued to grow and invest in 2024. The year under review was shaped by investments in engine development work for all commercial thrust classes, investments in the expansion of production capacity at domestic and foreign sites, and investments in intangible assets in the form of advance payments for the acquisition of additional stakes in MRO programs with the aim of expanding the maintenance and repair business.

In comparison to the previous year, adjusted free cash flow fell to €183 million (previous year: €352 million), which was caused primarily by non-cash working capital increases and intensified by progress under the GTF™ fleet management plan, high capital expenditure for the growing engine leasing business, the expansion of global production capacities and, last but not least, by the company's share of compensation payments to PW1100G-JM program customers under the GTF™ fleet management plan. From the current perspective and in line with other estimates to date, the GTF™ fleet management plan will continue to have a significant negative effect on free cash flow in 2025 and 2026.

In MTU's view, the forecasts published at the beginning of the year and specified in more detail during the year were essentially met and in some cases slightly exceeded as a result of the good operating performance in particular.

MTU AG (disclosures in accordance with the German Commercial Code [HGB])

The management report of MTU Aero Engines AG (MTU AG) and the Group management report for the fiscal year 2024 have been combined in accordance with Section 315 (5) of the German Commercial Code (HGB) in conjunction with Section 298 (2) of the German Commercial Code (HGB). The annual financial statements of MTU AG were prepared in accordance with the provisions of the German Commercial Code (HGB) and are published together with the combined management report in the Unternehmensregister [German Company Register].

The business environment of MTU AG corresponds for the most part with that of the Group as described earlier under *Economic report*.

Business activities

MTU AG develops and manufactures components for commercial and military aircraft engines and aero-derivative industrial gas turbines. The company also carries out maintenance of military engines. MTU has technological expertise, in particular, in low-pressure turbines, high-pressure compressors and turbine center frames, and in repair techniques and manufacturing processes. It is involved in important national and international technology programs and cooperates with the top names in the engine industry (known as OEMs) – GE Aerospace, Pratt & Whitney and Rolls-Royce.

Disclosures relating to results of operations

Income statement of MTU Aero Engines AG (German Commercial Code [HGB])

			Change against previous year (adjusted)	
in € million	2024	2023	in € million	in %
Revenue	**4,424**	**2,738**	**1,686**	**61.6**
Cost of goods sold	–3,904	–3,283	–621	–18.9
Gross profit	**520**	**–545**	**1,065**	**>100**
Selling expenses	–99	–97	–2	–2.1
General administrative expenses	–63	–58	–5	–8.6
Other operating profit	19	65	–46	–70.8
Net financial income/expense	313	229	84	36.7
Earnings before tax	**690**	**–406**	**1,096**	**>100**
Tax expense	–196	151	–347	<-100
Net profit for the year	**494**	**–255**	**749**	**>100**
Withdrawal from other retained earnings		363	–363	0
Allocation to other retained earnings	–247		–247	
Net profit available for distribution	**247**	**108**	**139**	**>100**

Revenue

In the year under review, 2024, revenue rose by €1,686 million from €2,738 million to €4,424 million, whereby the previous year was significantly affected by charges of €955 million arising from the GTF™ fleet management plan. The operating business continued on an upward trend, driven particularly by the positive commercial development of the GTF™ programs and the GEnx program, especially in the new engine business. This was complemented by positive trends in the military new engine business and the maintenance and repair business for the TP400-D6, EJ200 and RB199 programs. Furthermore, NGFE (New Generation Fighter Engine) development work also supported the growth of military revenue in the year under review.

Cost of goods sold and gross profit

As a result in the rise in business volume and the economies of scale achieved as a result, the cost of goods sold rose in relation to revenue, though at a disproportionately low rate when hypothetically adjusted for one-off effects from the GTF™ fleet management plan.

Gross profit for the fiscal year was €520 million (previous year: €-545 million).

Selling expenses and general administrative expenses

In 2024, selling expenses and general administrative expenses rose moderately by €2 million and €5 million respectively.

Other operating profit

In the year under review, other operating profit was negatively affected by net exchange rate expenses caused by the fall in the €/U.S.$ year-end exchange rate from U.S$1.11 per euro to U.S.$1.04 per euro, as well as being hampered by expenses arising from measurement of foreign currency holdings and hedging transactions amounting to €101 million (previous year: €34 million). Countering this was income from the reversal of provisions, particularly in relation to invoice correction risks under stakes in commercial engine programs, amounting to €92 million (previous year: €21 million in income) and refunds of foreign transaction taxes from previous years amounting to €21 million.

Net financial income/expense

Net financial income/expense for the reporting period contains investment income of €323 million (previous year: €209 million). Of this amount, €210 million (previous year: €152 million) comprises profit transfers from MTU Maintenance Hannover GmbH, Langenhagen, Germany, MTU Maintenance Berlin-Brandenburg GmbH, Ludwigsfelde, Germany, and MTU Versicherungsvermittlungs- und Wirtschaftsdienst GmbH, Munich, Germany.

Furthermore, income from investments contains dividend payments of €113 million (previous year: €57 million) from foreign investments, especially MTU Aero Engines Polska sp. z. o.o., Rzeszów, Poland, and MTU Maintenance Zhuhai Co. Ltd., Zhuhai, China. In addition, net financial income/expense for the reporting period was negatively affected by business-performance-related write-downs of investments amounting to €10 million.

Tax expense

Expenses for income tax for the fiscal year amounted to €195 million (previous year: €152 million of income). The current tax expense included in this figure amounted to €178 million (previous year: €125 million), including tax expense of €24 million (previous year: tax income of €3 million) relating to prior periods.

The net deferred tax expense included in this figure amounted to €17 million (previous year: €277 million of net income), including a deferred tax income of €24 million (previous year: €3 million in income) relating to prior periods.

Net profit for the year and net profit available for distribution

Subject to the approval of the Supervisory Board, the net profit available for distribution to shareholders of MTU Aero Engines AG for the reporting year takes account of the allocation of parts of the net profit for the year 2024 amounting to €247 million is allocated to retained earnings in accordance with Section 58 (2) of the German Stock Corporation Act [AktG] (previous year: €363 million withdrawal from other retained earnings).

Determination of the net profit available for distribution considers amounts excluded from distribution: €293 million (previous year: €269 million) from the capitalization of internally generated intangible assets (Section 248 (2) of the German Commercial Code [HGB]) and €0 million (previous year: €5 million) from the measurement of pension obligations (Section 253 (2) of the German Commercial Code [HGB]), taking into account, in both cases, the related deferred taxes. These were matched in full by free retained earnings pursuant to Section 268 (8) of the German Commercial Code (HGB) and Section 253 (6) of the German Commercial Code (HGB) as of the reporting date.

Subject to the approval of the Supervisory Board, a proposal will be put to the Annual General Meeting that part of the net profit available for distribution will be used to pay a dividend of €2.20 per share (previous year: €2.00 per share) and that the remaining amount will be transferred to other retained earnings. Subject to the approval of the Annual General Meeting the dividend for fiscal year 2024 will be paid out on May 13, 2025, the third business day following the resolution passed at the Annual General Meeting, in accordance with Section 58 (4) (2) of the German Stock Corporation Act (AktG) and corresponds to a dividend total of €118 million (previous year: €108 million).

Disclosures relating to net assets and financial position

Balance sheet of MTU Aero Engines AG (German Commercial Code [HGB])

	Dec. 31, 2024		Dec. 31, 2023		Change against previous year	
in € million	in € million	in %	in € million	in %	in € million	in %
Assets						
Intangible assets and property, plant and equipment	1,917	18.3	1,856	21.4	61	3.3
Financial assets	1,489	14.2	1,400	16.1	89	6.4
Non-current assets	**3,406**	**32.5**	**3,256**	**37.5**	**150**	**4.6**
Inventories	742	7.1	742	8.5		
Receivables and other assets	4,180	39.9	3,352	38.5	828	24.7
Securities	1,224	11.7	527	6.1	697	>100
Cash and cash equivalents	394	3.8	267	3.1	127	47.6
Current assets	**6,540**	**62.4**	**4,888**	**56.2**	**1,652**	**33.8**
Prepaid expenses	**26**	**0.2**	**29**	**0.3**	**-3**	**-10.3**
Deferred tax assets	**502**	**4.8**	**527**	**6.1**	**-25**	**-4.7**
Total assets	**10,474**	**100.0**	**8,700**	**100.0**	**1,774**	**20.4**
Capital						
Subscribed capital	54	0.5	54	0.6	0	0.2
Capital reserves	713	6.8	712	8.2	1	0.1
Retained earnings	1,334	12.7	1,084	12.5	250	23.1
Net profit available for distribution	247	2.4	108	1.2	139	>100
Equity	**2,348**	**22.4**	**1,958**	**22.5**	**390**	**19.9**
Pension provisions	728	7.0	754	8.7	-26	-3.4
Other provisions	3,591	34.3	3,475	39.9	116	3.3
Provisions	**4,319**	**41.3**	**4,229**	**48.6**	**90**	**2.1**
Bonds	1,868	17.8	1,110	12.7	758	68.3
Liabilities to banks	316	3.0	7	0.1	309	>100
Advance payments received	437	4.2	488	5.6	-51	-10.5
Trade payables and other liabilities	1,014	9.7	728	8.4	286	39.3
Liabilities	**3,635**	**34.7**	**2,333**	**26.8**	**1,302**	**55.8**
Deferred tax liabilities	**173**	**1.6**	**180**	**2.1**	**-7**	**-4.1**
Total equity and liabilities	**10,474**	**100.0**	**8,700**	**100.0**	**1,774**	**20.4**

In fiscal year 2024, intangible assets in the amount of €108 million were capitalized (previous year: €113 million). €54 million (previous year: €50 million) was invested in internally generated development assets and €34 million (previous year: €21 million) was invested in acquired development work, in particular for the GTF™ engine family, and in the acquisition of software.

A reduction of stakes in the PW500G-/PW1900-G engine program was also implemented with the OEM in the reporting year in order to align the contractual participation in program profits to the production share. In this context, retroactive transaction price reductions for the program assets and acquired development assets were recorded at the amount of consideration received.

Property, plant and equipment increased by €209 million, principally as a result of expansion and modernization of production capacities at the Munich site and the purchase of new and replacement machinery and tools/fixtures.

Financial assets increased by €89 million to €1,489 million (previous year: €1,400 million). This was mainly attributable to capital contributions to affiliated companies, including €101 million to MTU Maintenance Dallas Inc., €10 million to MTU Maintenance Serbia d. o. o. and to the acquisition of and subsequent capital contributions to 3D.aero GmbH amounting to €9 million. This was partially offset by business-performance-related write-downs on investments amounting to €10 million.

Despite growth in the commercial and military engine business compared to the previous year, inventories remained broadly stable.

Receivables and other assets rose significantly by €828 million from €3,352 million in the previous year to €4,180 million in the year under review, which was driven by business growth and, in particular, by the consortium-based stake in pre-financed maintenance and repair services under the GTF™ fleet management plan. Trade receivables increased to €947 million (previous year: €858 million); the increase was business-driven. Since the commercial OEM activities are billed in U.S. dollars, the year-on-year change in the closing exchange rate for the U.S. dollar from U.S.$1.11 per euro to U.S.$1.04 euro also increased this item.

The increase in receivables from affiliated companies from €1,026 million to €1,110 million relates to claims under profit and loss transfer agreements and the financing of subsidiaries. The receivables from investments increased from €851 million to €1,126 million. These changes correspond to the positive business developments during the year under review and are enhanced by effects from the GTF™ fleet management plan and the development of the year-end U.S.$ exchange rate. The influencing factors described above also affect the €356 million rise in other assets to a total of €973 million (previous year: €617 million), which was caused in particular by the participation in pre-financed maintenance and repair services.

The change to cash and cash equivalents was affected especially by the successful placement of a corporate bond with a total nominal value of €750 million and by two new promissory notes with a total nominal amount of €300 million. These will be used for general corporate financing and to refinance the existing corporate bond due in 2025 ahead of schedule.

Equity comprises the capital stock less the nominal amount of treasury shares, capital reserves, retained earnings, and the net profit available for distribution. The main changes result from the use of the net profit available for distribution in 2023 to pay a dividend and the net profit for 2024.

The change in provisions for pension obligations was significantly influenced by the increase in the discount rate governed by the German Commercial Code (HGB).

The increase in other provisions was mainly driven by the rise in operating revenue in 2024, accompanied by an increase in accruals for invoice corrections in connection with stakes in commercial engine programs. The increase in this item was bolstered by the year-on-year change in the closing exchange rate for the U.S. dollar from U.S.$1.11 per euro to U.S.$1.04 per euro.

The increase in liabilities by €1,302 million to €3,635 million in the year under review (previous year: €2,333 million) stems primarily from the successful placement of a corporate bond with a nominal value of €750 million and long-term promissory notes with a total nominal amount of €300 million. Furthermore, the €184 million rise in other liabilities is also related to the reclassification of other provisions for imbalance payment obligations to other liabilities as a result of agreements made during 2024 to set multi-year payment targets for specific imbalance payment obligations.

The liabilities also include personnel-related obligations of €179 million (previous year: €166 million) and include obligations from performance-related compensation granted.

Furthermore, advance payments received for orders decreased by €51 million, whereas liabilities to associates and affiliated companies in connection with Group financing operations increased by €57 million and €41 million respectively.

Financial position

In the reporting year, MTU raised two promissory notes totaling €300 million and successfully placed a corporate bond with a total nominal value of €750 million for general corporate financing and to refinance the existing corporate bond due in 2025 ahead of schedule.

Principles and objectives of financial management

The principles and objectives of financial management at MTU AG correspond for the most part with that of the Group as described earlier under *Economic report*.

Securities and bank balances

The increase in securities and cash (or credit) balance at banks is due to the fact that the cash inflows from operating activities, which contain cash inflows from the positive operating business, and dividend distributions and profit transfers from associates, more than offset the cash outflows for investing activities in the reporting period. There was also a net cash inflow from financing activities during the year under review.

Further details of the cash flow can be found in the *Financial position* section of the management report.

Other disclosures

The opportunities, risks and future development of MTU AG essentially correspond to the opportunities, risks and future development of the MTU Group as described below in the sections *Forecast and Risk and opportunity report*.

As the Group's parent company, MTU AG is integrated in the Group-wide risk management system that is described in detail in the *Risk and opportunity report*. The description of the internal control system of MTU AG required under Section 289 (4) of the German Commercial Code (HGB) can be found in the section *Internal control and risk management system for the Group accounting process*.

For further information on the use of financial instruments, please refer to the *Notes to the consolidated financial statements* and to the explanations in the *Risk and opportunity report*.

Due to the allocation of business within the Group, the outlook for MTU AG corresponds closely with the outlook for the commercial and military engine business (OEM) and, in view of the profit and loss transfer agreements with the German subsidiaries, with the outlook for the commercial maintenance (MRO) business, which are presented in the *section headed Forecast*.

Based on corporate planning, the anticipated allocation of business to Group companies within these plans and the companies' dividend plans, MTU AG expects revenue and net income to rise in the low-teens percentage range compared to the previous year.

Forecast

Macroeconomic conditions

In its updated outlook from January 2025, the IMF predicts that inflation will continue retreating in 2025. Global consumer price inflation is expected to fall to 4.2% in 2025, with a forecast of 2.1% for industrialized countries. Monetary policy is therefore expected to loosen further. Global growth is projected at 3.3% in 2025, broadly unchanged from 2023 and 2024.

GDP growth in the USA is set to remain robust at 2.7%. The new U.S. President is expected to pursue a very business-friendly policy with low taxes and less government regulation in order to boost growth. Weak growth in the Eurozone is estimated at 1.0%, a slight improvement on 0.8% in 2024. For Germany, the IMF also forecasts improved but still weak growth of 0.3% in 2025. In China, economic growth is likely to be shored up by higher government spending, but the real estate sector remains weak and low consumer confidence is putting the brakes on private consumption. China's GDP growth is likely to fall from 4.8% in 2024 to 4.6% in 2025.

The IMF points out that there are risks despite a generally stable and positive outlook. These include political uncertainties, volatile financial markets, particularly in emerging markets, and possible increases in commodity prices as a result of geopolitical tensions. These factors could force central banks to slow their monetary expansion, with a negative impact on both inflation and growth. A deeper slump in the Chinese real estate sector could weaken consumer confidence and have global repercussions due to China's key role in world trade. Protectionist measures such as potentially higher U.S. tariffs on imports from China or Europe could exacerbate trade conflicts, hamper market efficiency and further disrupt supply chains. Rising social tensions could weigh on consumer and investor confidence.

However, there are also opportunities for the global economy. In its Economic Outlook published in December 2024, the OECD emphasizes that growth could be stronger than expected. If consumer confidence were to grow, say due to a more rapid recovery in purchasing power, consumer expenditure and economic activity could increase. By the same token, a speedy solution to significant geopolitical conflicts could brighten the overall mood and reduce energy prices.

Sector-specific conditions within the aviation industry

In December 2024, IATA predicted that air traffic would grow by 8% in 2025, which is much higher than the average growth of 4.1% in 2019 before the pandemic. As such, this above-average growth is still a factor of the post-COVID catch-up. Cargo volumes are also expected to increase by 6%, albeit at a slower rate than in recent months. According to IATA estimates, global aviation industry revenues for 2025 will exceed U.S.$1 trillion for the first time, at U.S.$1,007 billion, while net profit is set to rise to U.S.$36.6 billion. These projections are based on an average kerosene price of U.S.$87 per barrel.

Airbus and Boeing are starting 2025 with an unprecedented order backlog of around 14,900 commercial aircraft, which at current production rates equates to eleven years of production. This reflects airlines' pressing demand for the latest generation of fuel-efficient aircraft as well as ongoing delivery delays. Airbus and Boeing plan to increase their deliveries again in 2025. Airbus remains committed to increasing the production rate of its A320neo family to 75 per month by 2027, while the A220 is expected to reach a monthly production rate of 14 by 2026. Deliveries of the Boeing 787 are set to reach 120 aircraft in 2026. The deployment of the Boeing 777-9, equipped with GE9X engines, has been postponed to 2026 due to interrupted flight tests and a two-month strike. Boeing also announced that it will discontinue production of the cargo version of the 767 with CF6-80C engines in 2027 due to lack of demand for the model. With a production rate of 1 to 2 per month, the impact on Boeing, GE and MTU should be limited.

The industry will continue to face challenges in 2025, particularly in eliminating supply chain bottlenecks and resolving quality and certification issues. Airlines will extend the service life of older aircraft until target production rates are met. This implies expanded maintenance capabilities to meet the challenges of new programs and keep the older fleet in operation.

The defense sector, too, is still posting steady growth rates. The war in Ukraine, the conflict in the Middle East and increasing tensions in Asia continue to fuel geopolitical instability. This is compounded by the additional uncertainty following the change of government in the USA in relation to continued US support for Ukraine and NATO. As a result, global defense spending is forecast to grow by an average of around 2% per year for the next decade (source: Aviation Week Military Quarterly Report Q3/2024). This increase is mainly driven by the regions of Asia, Europe and the countries of the Middle East and North Africa.

Future performance of MTU

The forward-looking performance indicators published for the forecast financial indicators are based on data generated in the planning process. The method used to calculate the forecast key financial indicators is consistent with the accounting policies applied and the calculation logic for the alternative performance indicators outlined in *Note 12. Additional disclosures relating to the income statement*.

In view of the impact of the Covid-19 pandemic, the general economic situation and, in particular, the geopolitical developments, especially in connection with Russia's invasion of Ukraine, there could be problems or delays affecting development work, supply chain and demand-induced changes or postponements in series production and maintenance of engines on the aftermarket, which could affect the forecast for the principal financial KPIs.

Expenditure on new products and services

The aviation industry remains on its recovery trajectory and global flights increased significantly in 2024. Continued strong growth is assumed for 2025. This positive trend is hampered by the ongoing flight restrictions resulting from the war between Russia and Ukraine. However, the aviation industry remains on a constant growth trajectory on the whole. The recent ramp-up of engine production should continue in 2025.

Similarly, there should be corresponding growth in market demand for spare parts and the MRO business.

Development work should also continue to grow in 2025, not least because of the participation in the next generation fighter aircraft, the Future Combat Air System (FCAS).

For the start of the ramp-up of engine production rates and to secure its long-term competitiveness, MTU is investing a substantial amount to expand the highly productive manufacturing and logistics capacity at its headquarters in Munich, Germany.

Moreover, expansion of capacity will continue, especially in China.

Outlook for 2025

Target

MTU's targets for the fiscal year 2025 are as follows:

Outlook for 2025

in € million	Forecast for 2025	Actual 2024
Adjusted revenue	Between €8.7 billion and €8.9 billion	7.488
Adjusted EBIT margin	Moderately below the previous year's level	14.0%
Adjusted EBIT	Growth in the mid teens percentage range	1.050
Adjusted net income	Growth in line with adjusted EBIT	764
Adjusted earnings per share (in €)	Growth in line with adjusted EBIT	14.04
Adjusted free cash flow	Between 200 and 300	183

Revenue by operating segment

Within the OEM business, MTU assumes that organic revenue growth on a U.S. dollar basis in the commercial series business will be in the mid-teens percentage range in 2025. In the commercial spare parts business, organic revenue growth on a U.S. dollar basis is expected to be in the low-teens percentage range.

Revenue growth in the military engine business is expected to be in the mid to high single-digit percentage range in 2025. This is driven primarily by revenue for Eurofighter engines and revenue related to FCAS development work.

For the commercial maintenance business in 2025, MTU forecasts organic growth in the low- to mid-teens percentage range on a U.S. dollar basis. In this business, the proportion of revenue from the PW1100G-JM is expected to increase. Its share of MRO revenue should be around 40%. Execution of the GTF fleet management plan will play a significant role in this.

In view of this, the adjusted total revenue of the MTU Group in euros is expected to be between €8.7 and €8.9 billion.

This estimate is based on an average exchange rate of the U.S.$1.05 to the euro.

Operating profit

MTU predicts growth for the adjusted EBIT to be in the mid-teens percentage range for 2025. With the anticipated growth of adjusted revenue this results in an expected margin of adjusted EBIT to revenue that is down moderately on the prior-year figure.

Adjusted net income is expected to develop essentially in line with adjusted EBIT.

Adjusted free cash flow

Capital expenditure will remain high in 2025. Moreover, higher working capital reserves will be held to safeguard delivery capability. Nevertheless, MTU plans to offset these charges through its operating business. However, the charges arising from the GTF fleet management plan will reduce the free cash flow. In total, free cash flow is expected to be between €200 and 300 million.

Adjusted earnings per share

Adjusted earnings per share are expected to develop essentially in line with adjusted EBIT in 2025.

Future dividend

MTU's dividend policy envisages the payment of an attractive dividend. In view of the exceptional circumstances resulting from the GTF fleet management plan, the company is compelled to reduce the dividend for 2024, contrary to its target. For the fiscal years affected, it is therefore suspending the target of continuously raising the payout ratio towards 40% of adjusted net income.

Overall forecast of future business performance in 2025

The Executive Board expects business to continue to develop favorably: revenues are likely to continue to grow significantly and MTU is expected to continue to achieve a strong adjusted EBIT. The further intensification of development activities and capital expenditure in 2025 pave the way for the long-term and sustained positive business development of MTU. In this context, the operational challenges resulting from the GTF fleet management plan will be a focus of activity.

MTU is monitoring the possible impact of the general economic situation and the global crises on its current business performance and will provide more specific details on its forecast in the course of the year and adjust it if necessary.

Risk and opportunity report

Risk report

Risks are an inherent part of any entrepreneurial activity. To enable it to take best advantage of market opportunities and to identify and manage the risks involved, MTU has an integrated opportunity and risk management system. This is linked to the Group's value-oriented performance indicators and its organizational structure and ensures lasting business success. The system is based on the internationally recognized COSO II Enterprise Risk Management Framework. In order to implement risk management within the MTU Group, the central Risk Management department has been established; tasked with policy responsibility, this department coordinates reporting via the Risk Officers named in company departments and on behalf of senior management. To this end, the central department provides binding instructions and supporting materials. These include the MTU risk guidelines and extensive checklists, which provide guidance and operational support in the risk management process, the aim being to identify risks at an early stage, assess their impacts and, where necessary, devise management measures to mitigate the risks and/or create opportunities from them.

Strategy and risk management system

Control environment

MTU regards a suitable control environment as being essential for a functioning risk management system. The main elements of this are:

- management style and philosophy,
- integrity and ethical values,
- no-blame culture,
- staff training and development.

The MTU Principles require a constructive approach to mistakes, and the company's leadership values include a commitment to actively driving change, creating an atmosphere of trust, and ensuring continuous improvement. This is supported by lean management in all areas of the company, which also aims to create a culture that ensures a functioning risk management system.

Risk management objectives and risk strategy

The objectives of MTU's risk management system are to create transparency with regard to all risks and opportunities, to ward off risks to MTU's status as a going concern and to safeguard the company's future business success.

The company does not limit itself to ensuring compliance with statutory requirements. Rather, it seeks to integrate its opportunity and risk management system into all processes in the company, from financial planning, control and reporting processes, including and in particular monthly reporting to the Executive Board and the Supervisory Board. Risk management also takes place in other areas of the company; for instance, it is a key component of project management.

Identification, analysis and management of risks

MTU regards risk management as a continuous process that ensures responsible behavior when dealing with specific risks to organizational units and general risks affecting several units or the entire Group.

The Group's risk inventory, which encompasses all organizational units and all risk factors to which MTU is exposed, forms the basis for identifying risks. In the interests of a more detailed assessment of risks, MTU has divided this framework into 10 risk categories covering all organizational units. The following risk categories have been identified as being particularly significant for the MTU business model:

- Environment
- Financial
- IT
- Legal & Compliance & Governance
- Manufacturing & Maintenance
- Programs & Projects
- Research & Development
- Social & Human Resources
- Strategic
- Supply Chain

Operational risk management takes place at the level of the organizationally separate units and in the respective subsidiaries. These are responsible for identifying, assessing, controlling and monitoring the risks in their specific areas, and documenting them in a centrally available risk management tool. To this end, the organizational units use a centrally provided risk checklist derived from the risk inventory.

The mandatory threshold for reporting quantitative risks to the central risk management function is €5 million for EBIT and liquidity (cash) over the defined three-year assessment period, taken separately for each year of the planning period. Risks are reported quarterly, corresponding to the frequency of corporate planning and/or forecasts. Business units report risks to the central risk management function in the form of risk maps. Any particularly significant risks identified outside the quarterly risk reports are reported immediately to the central Risk Management department and/or the Executive Board, partly to allow the Supervisory Board to be notified in good time.

The quantitative risks reported in the risk maps are assessed and shown as a possible deviation in the Group performance indicators EBIT and liquidity (cash) compared with current operational planning figures and using four defined levels for financial implications:

- Very high: ≥ €75 million
- High: €50–75 million
- Medium: €25–50 million
- Low: < €25 million

and four defined levels for likelihood of occurrence:

- Almost certain (80% – 100%)
- Likely (50% – 80%)
- Possible (20% – 50%)
- Unlikely (0% – 20%)

In addition to these quantitative, financial risks, risk management explicitly includes non-financial risks that cannot be evaluated as of the balance sheet date, making them qualitative. The four levels of probability of occurrence are the same for these qualitative risks. Qualitative risks are assessed using four impact classes:

- Very high: risk could affect the ability of MTU Aero Engines AG (Group) to continue as a going concern
- High: risk could have a material strategic impact on MTU Aero Engines AG (Group)
- Medium: risk could have an impact of relevance for how MTU Aero Engines AG (Group) is managed
- Low: risk has no material or management-related impact on MTU Aero Engines AG (Group)

The central risk management function aggregates and consolidates the reported risks. It also provides assistance with the risk management process, prescribes uniform methods and tools, and evaluates the Group's overall risk position. Furthermore, it supports the work of the Risk Management Board, set up by senior management on a cross-organizational basis, which performs central control and monitoring functions for the Group. At its quarterly meetings, the Risk Management Board particularly examines interactions between individual risks and the completeness of the measures initiated to offset the reported risks; on this basis, it issues recommendations on the Group's opportunity and risk position to the uppermost governing body.

Risk reporting and risk communication

MTU's Executive Board is informed quarterly of the Group's current risk situation. The report to the Executive Board is agreed with the Risk Management Board and is structured on the basis of the segments. This report presents the company's Top Risk Map, which covers all risks and opportunities exceeding €20 million EBIT or liquidity (cash) over a three-year period. Separate presentations are made for the current year of the planning period and for the three-year assessment period. A risk assessment is then performed in this context, taking account of the amount of damage, the probability of occurrence and the identification of compensatory countermeasures.

The Supervisory Board's Audit Committee is also given an updated report on the MTU Group's opportunity and risk position on a quarterly basis. The most important issues from the previous risk review or updates particularly relevant to its recipients are also presented in monthly reports to the Executive Board and the Supervisory Board.

Monitoring the risk management process

Monitoring the risk management process is crucial to ensure its proper functioning and ongoing development.

The system used for the early recognition of risks is audited by the MTU auditor. In addition to this, the risk management system is monitored and verified by other functions and Group bodies:

- peer-group comparisons and benchmarking,
- process reviews by the Risk Management Board in the form of self-assessments,
- regular process and effectiveness audits by Internal Audit and/or independent experts,
- process reviews by the Supervisory Board's Audit Committee.

Risk category "Environment"

Environmental risks

Plants and installations at MTU's sites are subject to local environmental and occupational safety laws and regulations. To prevent or minimize pollution, official operating permits or licenses have to be obtained. In this context, operating concepts are required. Investments and operating expenditures are designed to ensure compliance with the laws and regulations and oversight of their appropriateness and effectiveness is systematically supported by establishing corresponding risk management and internal control systems. Nevertheless, MTU cannot completely preclude individual breaches of the applicable laws and regulations and failure to comply with their at times dynamic development and interpretation. Consequently, there is a risk that considerable fines or penalties could be imposed, including criminal sanctions. In addition, permits or licenses might be revoked or not extended in the future. Some MTU facilities have a long history of industrial operations. In individual cases, newly discovered contamination of sites could result in a risk that MTU could be exposed to claims in excess of the known obligations.

Further information on occupational safety and environmental protection can be found in the *Sustainability statement* section.

Climate change

When setting its own targets, MTU is guided by the EU Green Deal, which is derived from the 1.5°C target of the Paris Agreement and aims for climate neutrality by 2050. The main areas of activity are the transition to climate-neutral aviation and the shift to climate-neutral provision of the products and services. Alongside the relevant societal risks, there is a specific threat to MTU's business due to the loss of market access and growth opportunities, a deterioration in earnings as a result of legally-induced sanction mechanisms, a loss of attractiveness as an employer for present and future generations, and greater difficulty accessing funding, up to including legal requirements to halt production of parts or the entire business operation.

Goals and opportunities geared to sustainable commercial propulsion concepts as part of the transition to emission-free flying are defined in MTU's Clean Air Engine Technology Agenda Claire. This is being implemented as part of MTU's Leading Technology Roadmap, which focuses on two areas: First, the evolutionary development of gas turbines based on the GTF, combined with revolutionary propulsion concepts that greatly improve the cyclic process and significantly reduce all emissions. Second, complete electrification of the powerchain to maximize emission-free flying. Out of all the concepts considered, from MTU's current standpoint the conversion of hydrogen into power with the aid of a fuel cell is becoming most relevant. MTU calls this the Flying Fuel Cell. Alongside these topics, MTU is actively supporting developments to increase the use of sustainable aviation fuel (SAF). Information on alternative propulsion technologies for aircraft is presented in the *sections headed Substitution risks arising from disruptive technologies* in the risk report, *Research and development*, and *Sustainability statement*.

The measures designed to achieve climate-neutral provision of MTU's products and services are set out in the ecoRoadmap, an operational climate strategy that MTU has rolled out to all production sites. MTU continuously monitors greenhouse gas emissions in the production and maintenance of engines and modules at its sites using the internationally recognized Greenhouse Gas (GHG) Protocol. MTU strives to achieve a lasting reduction in GHG emissions. To make the climate impact of MTU even more transparent for stakeholders, the company takes part in the annual rating by the international non-profit organization CDP, which collects data on greenhouse gas emissions, climate risks, and climate strategies from companies once a year.

Assessment of the opportunity/risk position – Environment

The current risk report identifies as significant risks those individual qualitative risks in the "Environment" risk category that fall within the impact classes "high" or "very high" and that are deemed likely to occur. All in all, MTU considers its risks in this category to be manageable on this basis, especially in light of the measures taken to control them.

Risk category "Financial"

Non-payment risk

Airlines, which are affected by the geopolitical and macroeconomic situation, are major direct and indirect customers of MTU. These companies may find themselves facing financial difficulties that affect the receivables of MTU and its partners.

The consortium leaders in the commercial OEM business have intensive receivables management systems in place. Despite the crises, the credit default risks in the commercial OEM business are still considered to be manageable due to the structures established by the programs and long-standing experience. In the MRO business, the responsible account managers use established and proven concepts to proactively monitor and manage credit risks in short cycles. A risk assessment is carried out before any relevant contract is signed, and systematic compensatory precautions are taken as needed. These include compensatory payment terms or the issuing of guarantees/sureties. On a case-by-case basis, commercial credit insurance or export credit guarantees (Hermes coverage) are taken out.

Foreign currency risks

More than 85% of MTU's revenue is generated in U.S. dollars. It is currently expected that over 75% of this currency risk of the receipts generated in this currency will be naturally hedged by costs settled in U.S. dollars. Most other expenses are incurred in euros and, to a lesser extent, in Polish zloty, pounds sterling, Serbian dinar and Canadian dollars. In line with the corporate policy of generating profit solely on the basis of operating activities and not through currency speculation, MTU makes use of hedging instruments exclusively for the purpose of controlling and minimizing the effect of U.S. dollar exchange rate volatility on the Group's financial position and results of operations.

The forward foreign exchange contracts concluded by MTU cover a large part of its net exposure to short- and mid-term currency risks. The hedging horizon is up to five years and uses a model where the authorized hedging ratios decline the further in the future the expected net currency exposure is. Thus, only a small portion of the expected net U.S. dollar exposure in the present and following year is exposed to currency risks relative to the Group's reporting currency (the euro).

Detailed information on the financial instruments used to hedge future cash flows is provided in *section IV, Note 35. Financial risk in the Notes to the consolidated financial statements*.

For a detailed description of MTU's financial management system, please refer to the *Principles and objectives of financial management* section under *Financial situation*.

Tax risks

As a multinational industrial company, MTU identifies differentiated tax risks that could influence business operations and the financing strategy. These risks arise from the complex and ever-changing tax legislation in the various countries in which the company operates. The following risks are currently assessed as being relevant for MTU:

- Changes to tax legislation: the underlying tax law framework is subject to frequent changes, which could occur at both national and international level. Changes to corporation tax or other taxes could have a significant impact on the company's tax burden. In particular, MTU is considering the current regulatory developments in the USA,
- International tax structuring: the Group operates in many jurisdictions, necessitating effective international tax planning. Insufficient or incorrect tax planning could result in an increase in tax liabilities or double taxation, particularly in respect of transfer pricing between associates.
- Tax inspections and disputes: the probability of tax inspections by national tax authorities is high, particularly in a regulated sector such as aviation. Such inspections could lead to additional tax claims, penalties or back payments. Protracted disputes with tax authorities could also tie up resources and tarnish the company's reputation.
- Compliance risks: compliance with myriad tax regulations and reporting is of considerable importance to the company. Errors in tax reporting or in relation to compliance could lead to financial disadvantages and legal consequences.

In order to proactively counter these tax risks, the Group pursues a comprehensive tax strategy that encompasses regular reviews, close cooperation with tax advisors and legal experts and the upholding of ongoing compliance with international standards. Nevertheless, the company remains alert to the potential impacts of these risks on future business performance and the Group's financial stability.

Other financial risks

The aviation industry is highly capital-intensive, and many of MTU's direct and indirect business partners, especially airlines, leasing companies and service providers, are reliant on external sources of financing to make purchases and safeguard business operations. Changes in the access to financing, whether due to market conditions or lending policies, could impair the financial position of MTU's business partners and therefore lead to deferrals and defaults on receivables. In addition, delays to the financing of programs could also impair the liquidity position of MTU, as MTU may be required to make up-front payments.

A high dependency on a handful of strategic suppliers also increases the risk that disruptions to their financing adversely effect the production and therefore the business operations of MTU.

Assessment of the opportunity/risk position – Financial

The current risk report identifies as significant risks those individual quantitative risks in the "Financial" risk category that fall within the impact class "very high" and whose occurrence is deemed possible. All in all, MTU considers its risks in this category to be manageable on this basis, especially in light of the measures taken to control them.

Risk category "IT"

IT risks

MTU constantly monitors its risk situation in the area of data processing. The two risks considered to be most critical in this field are system crashes due to technical faults and cyberattacks, resulting in the non-availability of systems, unauthorized disclosure of information, or permanent loss of data. In view of the advanced digitalization of all material business processes at MTU, high availability and integrity of IT systems are crucial for smooth business operation. MTU generates, stores and processes extensive data with special confidentiality requirements – not only, but in particular, in the military business.

MTU constantly invests considerable sums in technical and organizational measures to guarantee the availability, confidentiality and integrity of the IT systems used or operated by the company. Nevertheless, it cannot be ruled out that MTU will be confronted with system failures, unauthorized access to confidential information or the loss of data. Every data theft, unauthorized data manipulation or data loss could negatively affect MTU's relationship to present or potential customers. Incidents like this could expose MTU to liability claims by third parties.

Assessment of the opportunity/risk position – IT

The current risk report does not identify any significant individual quantitative risks. All in all, MTU considers its risks in this category to be manageable on this basis, especially in light of the measures taken to control them.

Risk category "Legal & Compliance & Governance"

Compliance and legal risks

Compliance risks arise when managers or employees of the company fail to comply with laws and regulations or fail to observe internal guidelines. These risks can arise in all areas of the company.

MTU has implemented a number of measures with regard to its organizational structures and processes to minimize these risks and to safeguard compliance. In particular, central functions with managerial authority have been set up to monitor and enforce compliance with laws and regulations in the individual divisions (for instance, the Quality division is responsible for compliance with aviation authority regulations, while the Environmental Protection/Occupational Health and Safety division ensures that environmental protection regulations are adhered to).

In addition, measures to minimize company-related compliance risks were implemented at company level:

- binding rules of conduct valid throughout the Group,
- establishment of a central contact for reports of misconduct,
- establishment of an internet-based whistleblower system
- establishment of central compliance functions (Compliance Officer and Compliance Board),
- continuous security checks on employees,
- regular training.

Criminal intent can never completely be ruled out. All in all, MTU considers the compliance risks to be manageable, especially given the measures taken to control them and the management's oversight and regular assessment of their appropriateness and effectiveness.

Complex, frequently changing and in some cases conflicting international foreign trade and tax regulations, especially with regard to cross-border trade in goods and services in the industrial and defense sectors, mean that MTU is particularly exposed to violation of legal provisions. To compensate for relevant legal risks, processes that reinforce control are monitored and driven forward by central functions with technical and managerial authority. Identifiable risks arising from pending tax audits, customs audits, export controls and legal proceedings are managed by the central departments with the support of independent external consultants. The focus lies in particular on targeting process weaknesses and compensating for them.

Liability risks

Product liability claims, including defects in products produced by cooperation partners, and insurance costs could adversely affect MTU's financial position.

MTU operates in markets where its products and services could expose it to liability for personal injury, death or property damage. Liability could arise, in particular, due to failure of an engine or engine component designed, developed, manufactured, supplied or installed by MTU or one of its RRSP partners, in both the new engines business and the spare parts and aftermarket business.

In the commercial business, however, MTU is party to consortia and RRSP contracts. In most of these relationships, liability for third-party claims is borne by the consortium or the partners on the basis of their respective contribution to the consortium or RRSP, irrespective of the fault of the individual partner. In these RRSP programs, the consortium lead generally has the right to settle third-party claims unilaterally on behalf of all program participants. Consequently, MTU may be exposed to substantive liability for defects unrelated to the performance of its products. Furthermore, MTU's ability to negotiate compensation in individual cases may be limited or non-existent. At the same time, the joint liability of engine program consortia constitutes effective transfer of the risk of defects that are attributable to MTU.

In the military engine business, MTU is largely exempt from product risk liability.

Most of the RRSP contracts require MTU to take out insurance to cover potential product liability. Conversely, MTU makes participation in such programs contingent on such agreements. To cover the above risks, MTU has aviation product liability insurance with international aviation insurers (minimum rating of A– from Standard & Poor's or A.M. Best). Overall, such insurance covers the product liability risks discussed here within the value and content limits of such coverage. It is possible that these limits could be exceeded within the RRSP contracts.

Significant risks that should be mentioned in connection with consortial liability relating to stakes in consortia for commercial engine programs include consortial and claims risks, for example, as a result of arbitration proceedings.

Assessment of the opportunity/risk position – Legal, Compliance and Governance.

The current risk report identifies as significant risks those significant individual quantitative risks in the "Legal, Compliance and Governance" risk category that fall within the impact class "very high" and whose occurrence is deemed possible. All in all, MTU considers its risks in this category to be manageable on this basis, especially in light of the measures taken to control them.

Risk category "Manufacturing & Maintenance"

Manufacturing risks/shop floor risks

Highly sophisticated components and new materials are needed to meet the requirements of OEMs and other consortium partners with respect to engine weight, fuel consumption and noise emissions. In order to efficiently produce and process such components, MTU develops – and gains official approval for – innovative new manufacturing techniques. This can lead to delays in the start of production, a temporary increase in unit costs or a temporary reduction in delivery volumes compared to the agreed level. A further risk is that customers might impose penalties in the event that deliveries are delayed. It could also happen that the new manufacturing processes are not yet sufficiently mature to fully meet requirements when volume production is due to start. MTU counters this risk in technology projects by providing systematic support for the development and implementation process.

Assessment of the opportunity/risk position – Manufacturing and Maintenance

The current risk report identifies as significant risks those individual qualitative risks in the "Manufacturing and Maintenance" risk category that fall within the impact classes "medium" or "very high" and whose occurrence is deemed possible or unlikely. All in all, MTU considers its risks in this category to be manageable on this basis, especially in light of the measures taken to control them.

Risk category "Programs & Projects"

Market and program risks

The production of engine modules and components for aircraft is characterized by intensive competition between market participants. MTU is exposed to this competition in all aspects of its two operating segments: the commercial and military engine business (OEM) and the commercial maintenance business (MRO).

In its OEM segment, MTU participates in programs to develop and build new engines, which its OEM partners offer to manufacturers of commercial and military aircraft, airlines and governments. Some of these programs compete with other engine programs for installation in the same aircraft type. Therefore, MTU's success depends partly on the ability of its OEM partners to secure orders from manufacturers, airlines and governments for the engine programs that MTU is involved in. In addition, through its stakes in engine programs, MTU also competes with other producers of engine modules and components (some of which are highly specialized and may offer directly competing technology) as well as with the OEMs, which may possibly decide to source development work, components and parts internally rather than from MTU.

As well as competition in the new engines business, MTU's competitive situation in the OEM segment includes the sale of engine parts and components in the aftermarket business. The aftermarket business is highly significant for MTU because the success of its participation in engine programs over the entire lifecycle depends to a large extent on this business. MTU's commercial business is cyclical and sensitive to demand for air transport as well as to the financial situation of the commercial aviation industry.

MTU's customers in the military engine business are national and international agencies. Therefore, political changes have an almost immediate effect on MTU. Given the tight national budgets that can be observed at present, especially in Europe, there is always the risk that countries may postpone or cancel orders. Due to the budget situation, it may be necessary to renegotiate the scope of contractually agreed deliveries. In the military engine business, MTU is firmly embedded in international cooperative ventures. This tends to limit risks because the partners work together to protect their common interests. Furthermore, the terms of existing contracts in the military sector are generally defined to cover a prolonged period of time, thus largely ruling out price risks.

Even though the company assumes that defense budgets are likely to rise in the future, MTU's military business is principally dependent on the sustained commitment of the German and other European governments and the U.S. administration to their military procurement programs.

MTU is also exposed to competition in its MRO segment, which comprises commercial maintenance, repairs and overhauls. MTU is an independent provider of MRO services and therefore competes with airlines' internal MRO service providers, which have links to many of its potential customers. MTU's other major competitors are OEMs' maintenance operations. OEMs can link their service contracts with airlines to the sale of engines, which initially gives them a competitive advantage over MTU in this field. Worldwide, there are also many independent engine maintenance shops that, like MTU, are endeavoring to expand their market position.

Conditions are tough in some areas of the commercial MRO market in which MTU operates. The market conditions may remain challenging in the future as a result of factors that the company is unable to influence. The following factors could prove detrimental to the success of MTU's MRO business:

- Demand for MRO services depends on the capacity utilization of aircraft and could decline significantly if there is a reduction in passenger traffic
- The client base in the MRO segment is characterized by a few large individual customers, so losing one of these customers could have a negative impact on revenue from this business.
- Some of the engine programs in the MRO business are at an advanced stage in their lifecycle, so the MRO product portfolio could be too strongly focused on aging products and technologies.
- OEMs strive, and could continue to strive, to negotiate agreements where a large proportion of maintenance work is performed by internal units, especially because some of these units have links to their potential customers. A considerable shift towards such in-house units would reduce the competitive opportunities for third-party suppliers such as MTU.

MTU is a contracting party in "fly by the hour" and "power by the hour" agreements which obligate it to perform maintenance work on engines at flat-rate, usage-based prices. Under these agreements, MTU therefore effectively assumes the risk of higher maintenance and overhaul costs. MTU may incur losses in connection with these agreements because the underlying price models require a complex analysis of the performance conditions (including assumptions on future engine use and shop visit rates) when submitting offers for long-term agreements. If the assumptions made by MTU prove incorrect, its margins could be negatively affected.

Dependence on cooperation

MTU has long-term cooperation and collaboration agreements with various OEMs and other market participants. These can be terminated at short notice in certain circumstances, e.g., if there is a change in the company's shareholder structure. All these scenarios are beyond the company's influence. The loss of a major customer could have a severely negative impact on MTU's business activities, financial position or results of operations. For information on customer cluster risks, please refer to the *Segment report in the Notes to the consolidated financial statements*.

In its commercial business, MTU is involved in a number of risk- and revenue-sharing contracts (RRSP contracts) with OEMs, which relate to the development, production, sale and, in some cases, maintenance of commercial aircraft engines. The OEMs with which MTU has RRSP contracts include Pratt & Whitney, GE Aerospace, IAE LLC and IAE AG. Through RRSP contracts, MTU participates in the development, production and maintenance of new engine programs. In return, MTU is entitled to a share of the revenues from the sale of engines, components and spare parts.

RRSP contracts are an important business base for MTU. They enable it to build up long-term relationships with OEMs and to participate in the major engine manufacturers' sector-leading engine programs. Furthermore, MTU's RRSP contracts entail considerable risks, including a lack of control over the activities covered and losses arising from pricing of program activities or upfront financing of design and development costs, cost overruns, guarantees, warranties and penalties. The following overview highlights these risks:

- The respective OEM controls the end-customer relationship throughout the entire term of the program, including setting the price of engines and spare parts, granting concessions (including financing of engine and aircraft sales in a manner that could ultimately include recourse to MTU through the RRSP contract), granting guarantees, and defining and amending guarantee and other service guidelines for the aftermarket business.
- The RRSPs give MTU only limited inspection rights. As a result, it is not in a position to fully monitor whether the OEMs fully meet their obligations or exercise their rights fairly.
- OEMs can perform repair processes on MTU components or work with second-hand spare parts, which would have a negative effect on MTU's sales of spare parts.
- MTU has to undertake considerable advance work for the design and development of the engine components, for which it has been allocated design and development responsibility.
- The level of future returns in connection with the engine program is subject to a degree of uncertainty due to market developments.
- Similarly, MTU may be required to make advance payments ("entry fees") to OEMs to enable it to participate in programs, as compensation for development or other work already undertaken by the OEMs.
- Aircraft manufacturers may require OEMs to make advance payments for participation in new aircraft programs and to cover a percentage of the manufacturer's R&D expenses. The OEMs generally pass some of the costs for such payments on to their RRSP partners.
- The value of MTU's contribution to RRSPs (in the form of work on the design, development and production of engine modules and components) is generally set on the basis of cost assumptions made when the contract is signed (with limited adjustments for changes in design or extraordinary changes in raw material costs). In the event of cost overruns in the development and production of parts for which MTU is responsible, MTU may therefore not be able to recoup such costs from its share of the program. As a result, its profits from the engine program could be reduced.
- In the event of engine fleet measures in connection with its program consortia, MTU may be obligated to share some of the operational and financial burden. In this way, burdens and risks arise for MTU from the audit of significant parts of the PW1100G-JM engine fleet – the so-called GTF™ fleet management plan – initiated in 2023, and the associated compensation pledged to airlines by the responsible OEM.

In the commercial maintenance business, MTU's interests in the Asian market include a 50:50 joint venture, MTU Maintenance Zhuhai Co. Ltd., Zhuhai, China. In jointly controlled entities, where decisions have to be made collectively, there is always a risk of differences of opinion. Similarly, participation in international joint ventures often reveals cultural and political differences (for instance payment morale). Moreover, changes in the geopolitical situation can adversely affect cooperation in joint ventures.

From today's standpoint, MTU believes its collaborative business model stands it in good stead to effectively manage market and program risks, in particular in respect of the challenges associated with the development, production and market introduction of new engine programs and architectures. All in all, MTU considers the risks arising from market and program risks, and the dependence on cooperations to be manageable, especially in light of the measures taken to control them.

Assessment of the opportunity/risk position – Programs and Projects

In the "Programs and Projects" risk category, the current risk report identifies significant individual quantitative risks in the impact classes of "very high" and "medium" and whose likelihood of occurrence is deemed possible, as well as individual qualitative risks in the impact class "high" and whose likelihood of occurrence is deemed possible and likely. All in all, MTU considers its risks in this category to be manageable on this basis, especially in light of the measures taken to control them.

Risk category "Research & Development"

Research and development risk

MTU's success depends, among other things, on its research and development activities (R&D), which are performed both in the OEM segment and in the MRO segment. MTU finances its R&D spending from its own funds, state funding and, to a limited extent, through corresponding external orders. There is a risk that R&D activities might not meet customers' or market requirements cost-effectively or on schedule or might not meet the targets set. Therefore, the company cannot give any assurance that the capital used for these R&D activities will lead to opportunities for commercialization or result in productivity improvements commensurate with the resources invested. Furthermore, MTU is developing specific technologies and capabilities for its programs with a focus on reducing emissions and thus the climate impact of engines. If one of these programs should be halted or only be continued with a considerable delay, there is a possibility that MTU might not recoup the R&D costs and related investment expenditures incurred in the expectation of such programs.

Some of MTU's development activities are carried out within the scope of cooperative ventures. Each stake in such ventures and in RRSPs spreads the R&D-related risks beyond the company and therefore reduces its control over them. If one of MTU's cooperation partners has development and production risks, these could have a significant negative economic effect on MTU. In connection with RRSP and similar agreements, MTU's potential inability to deliver the necessary technology or design contribution could result in additional costs in order to fulfill its obligations, or MTU could be forced to make considerable imbalance payments under the RRSP agreement instead of the technology or design contribution. In addition, MTU may be required to make penalty payments to its RRSP partners if it fails to meet delivery schedules or certain development targets.

The risks are reduced by systematic, professional project management and risk diversification among the various development partners.

All in all, MTU considers its research and development risks to be manageable, especially in light of the measures taken to control them.

Substitution risks arising from disruptive technologies

New aircraft and propulsion systems are currently being investigated in order to make a contribution to meeting the ambitious climate targets. In 2021, Airbus presented three aircraft concepts that could facilitate emission-free commercial flights, with an increased focus on hydrogen as a fuel. This can be combusted directly in a modified gas turbine, which would hardly change MTU's current business model. By contrast, electrical propulsion systems based on a flying hydrogen-powered fuel cell are, in principle, a substitution risk for conventional engine technologies. Airbus envisions an initial application for such a concept in the aircraft class of 100 seats and 1,000 nm range, which would be below the current single-aisle segment. Airbus does not anticipate a launch date before 2040. Together with its research partners, MTU is conducting studies to examine all the conceivable concepts in order to factually assess the opportunities arising from alternative engine concepts and make use of them as appropriate. Among the key results from these studies are:

- Propulsion systems based on electric batteries are suitable today, and in the foreseeable future, only for applications requiring low performance and short duration of use, such as general aviation and urban air mobility. At the moment, there are no known battery concepts with sufficient capacity for short- and medium-haul aircraft, let alone for long-haul aircraft, which together represent an important market for MTU at present.
- Hybrid propulsion systems combine various power generation and fuel systems, for example, a kerosene-fired gas turbine and a battery-powered electric engine. Such a concept is currently being investigated alongside other technologies in the SWITCH clean aviation program in conjunction with the MTU industry partners Pratt & Whitney, Airbus, Collins and GKN as well as other partners from academia. Potential benefits are additional freedom in the design of aircraft and propulsion systems and integration of the engine. The focus is generally on reducing energy consumption and less on the climate impact. To identify the potential of further hybrid architectures as early as possible, MTU is involved in studies to evaluate such concepts. However, as yet they have not shown any major benefits compared with conventional propulsion systems in terms of energy consumption or climate impact.

- Considerable progress has been made in the development of fuel cells in recent years. In conjunction with liquid hydrogen fuel, they have far greater potential for use in aviation than batteries. For this reason, MTU is also working on a fuel cell propulsion system optimized for aviation: the Flying Fuel Cell (FFC). A positive decision was received on a coordinated application for funding under the EU Clean Aviation program submitted by a consortium of international partners led by MTU; work is underway on the corresponding HEROPS project. The aim is to develop and assemble a demonstration unit for ground testing that covers the entire propulsion system from the hydrogen fuel system to the gears.
- CO_2 is used as the starting product for the production of synthetic fuels. This significantly improves CO_2 performance by 80% or more, depending on the production process. The big advantage of sustainable aviation fuel (SAF) is that it is a "drop-in" fuel, in other words, no technical modifications to the aircraft, engine or airport infrastructure are necessary. In initial trials, SAF has also shown considerable potential to reduce condensation trails and their climate impact. SAF is therefore the technology that could bring a direct improvement in the climate impact of the present fleet. MTU Aero Engines is involved in research into SAF through its membership of the Bauhaus Luftfahrt research institute in Munich and aireg – Aviation Initiative for Renewable Energy in Germany e.V., which is based in Berlin. This not-for-profit initiative is promoting the availability and use of renewable energies in aviation.

From today's perspective, the fields in which MTU currently operates will not be affected by actual substitution risks in the foreseeable future. Nevertheless, MTU will continue to keep a close eye on developments in alternative propulsion concepts and compile further studies so it can react and, above all, participate in a timely fashion. This applies in particular to the FFC, for which the entry barriers facing non-engine manufacturers are significantly lower than for gas turbines. In parallel, MTU is permanently working to improve the efficiency of conventional engines, thus continuously raising the ecological and economic access barriers for any substitute products.

In addition to the substitution risks, risks could arise from climate-related regulations in the future. At present, there are no indications of specific activity by the regulatory authorities. Nevertheless, MTU is carefully evaluating developments in this field and will examine any emerging regulatory activities to identify potential strategic risks.

Furthermore, the development and introduction of the next generation of gas turbines for aircraft, in particular the second generation GTF, has been postponed until the end of the next decade, which means development will not begin before the start of the next decade. Due to the extended time frame between now and then, aviation companies – both aircraft and engine manufacturers – face a particular challenge in maintaining their skills and capabilities. MTU addresses this challenge through corresponding technological preparation programs, e.g., rig and demonstrator programs.

Assessment of the opportunity/risk position – Research and Development

In the risk category "Research and Development," the current risk report identifies no significant individual risks in the form of a deviation from planning (EBIT and liquidity). All in all, MTU considers its risks in this category to be manageable on this basis, especially in light of the measures taken to control them.

Risk category "Social & Human Resources"

Personnel risks

The quality of MTU's products and services depends to a large extent on the personnel it can recruit and retain, especially engineers and other specialists. MTU seeks to access both young talent and experienced specialists through company training programs, dual-study programs (which combine practical and academic work), attractive working conditions and marketing activities. However, for many key positions within the MTU Group there only a few sources of new staff with the necessary qualifications. The competition for such employees has increased in recent years and could intensify further in the future. Moreover, it is expected that demographic change will greatly exacerbate the shortage of skilled workers and adversely affect the ability to maintain or increase the personnel capacity required for business operations.

In addition to the risk that MTU might find it harder to recruit enough skilled workers, there is a risk of losing staff to other companies. The company is of the opinion that some MTU employees have technological know-how that makes them attractive to competitors or other employers. MTU's success depends on its ability, not simply to employ technically skilled specialists, but also to retain them over the long term, motivate them and support their personal and professional development.

Failure to recruit, retain and drive forward the development of qualified employees could impair MTU's ability to realize its planned business performance.

All in all, despite the present challenging economic situation, MTU considers the human resources risks to be manageable, especially in light of the measures taken to control them.

Assessment of the opportunity/risk position – Social & Human Resources

The current risk report identifies as significant risks those significant individual qualitative risks in the "Social & Human Resources" risk category that fall within the impact class "very high" and whose occurrence is deemed likely. All in all, MTU considers its risks in this category to be manageable on this basis, especially in light of the measures taken to control them.

Risk category "Strategic"

Macroeconomic risks

Within the aviation industry, MTU is exposed to competition in the development, production and maintenance of engines, engine modules and engine components. This business is cyclical and reacts sensitively to demand for passenger and cargo traffic. It is influenced by the general macroeconomic situation (GDP and trading volumes, exchange rates and raw material prices).

Demand from airlines for new aircraft and MTU's commercial engine products (new engines and spare parts) and their financing capability are heavily influenced by passenger numbers. A deterioration in the macroeconomic situation and the related demand for air traffic reduces use of the existing fleet of aircraft and demand for new aircraft. This represents a risk for MTU's business. Moreover, high competitive pressure among airlines could have a negative effect on individual airlines, which are potential direct or indirect MTU customers.

Compared with the previous year, geopolitical risks have increased in some areas, whereas economic risks in relation to global inflation and high interest rates have decreased. MTU sees the following risks based on the market environment:

- Quality and certification problems as well as labor shortages and component availability, are adversely affecting the supply chains that are currently being ramped up and holding back delivery rates in aviation.
- Climate change-related and natural catastrophes resulting directly or indirectly in a change in market structure and thus a reduction in demand and flights.
- Possible escalation of the political conflict and trade restrictions between the USA/Europe and China, resulting in higher raw material prices and lower global growth.

The company's ability to make appropriate predictions and plans for its business, especially in the short- and mid-term, is still hampered by the complex interaction of geopolitics, the climate crisis, economic development and pandemics. Although MTU consults with government agencies, industry associations and external aviation analysts at national and international level, there is a certain amount of uncertainty affecting its ability to adequately forecast the impact of these risk factors on its business. Incorrect projections could have a significant negative impact on MTU's business activities, cash flows, results of operations and financial position.

MTU could continue to be affected by disruption of supply chains in the medium term as well. In 2024, a number of examples of quality and certification problems came under the spotlight, starting with the incident involving a poorly attached section of the fuselage of an Alaska Airlines Boeing Max 9, followed by certification test flights for the Boeing 777X being halted after a mounting bolt failed on the test aircraft. In addition, some of MTU's suppliers continue to face labor shortages, which could hamper their ability to meet product delivery schedules. Additional uncertainty and disruption could be caused by further protracted strikes in the supply chain, as exemplified by the situation at Boeing this year.

Therefore, MTU could be exposed to risks in respect of costs that are necessary to meet its contractual commitments as well as risks to its product supply schedules. As a mid- to long-term effect of these risk factors, MTU could face more rapid changes in usage patterns or aviation regulations, which could adversely affect its business model. There is already a public debate about the social, economic and ecological implications of air travel and air cargo driven by the ongoing global climate debate. This has heightened personal and corporate awareness of travel and consumption behavior. Potential changes in usage patterns and the applicable regulations could be intensified and given new momentum by experience during the Covid-19 pandemic, e.g., online video conferencing as a substitute for business trips. If a reduction in travel and altered consumer spending patterns are regarded as socially desirable by the general public, this could have a significant negative impact on MTU's business model.

In particular, purely economic aspects will play their customary central role for air traffic alongside the consequences of the global debate on climate policy. Though most industrialized countries lowered their key interest rates over the course of 2024 thanks to falling inflation, the volatile global (geo)political and economic situation could reverse this trend, putting additional pressure on the weak economy.

A deterioration in the economic situation has the potential to reduce future growth in air traffic and thus demand for commercial engine products. Protectionist measures taken in some countries even before the pandemic are a further risk factor. These include the trade conflict between the USA and China. Protectionist measures hold back the volume of trade and countries' economic output and therefore reduce cargo and passenger traffic. Political crises and restrictions on air traffic as a result of wars, terrorist attacks or natural disaster are a also constant risk to air traffic and to MTU's engines business. Following Russia's military attack on Ukraine, the international community, especially the EU and the USA, imposed extensive economic sanctions on Russia. As a matter of course, MTU supports all sanction regulations and is in full compliance with them. For example, all deliveries and data transfers to Russia have been halted and payments to Russia and Russian recipients have been suspended. Furthermore, MTU has halted the signing of any new contracts with Russian involvement for an indefinite period of time. Contract negotiations that were already underway were halted with immediate effect. Generally speaking, MTU had only very limited MRO business with customers in Russia and no presence in the region. In the OEM business, it is involved in the PW1400G-JM engine program, which was intended for use in a Russian mid-haul jet (Irkut MC-21). This program has also been halted. Regardless of this, the company is constantly monitoring the situation, including its effects on global material supplies. Potential impacts to MTU's supply chain are being assessed continually and factored into the procurement strategy. The direct impact of the war in Ukraine on global air traffic and supply chains is limited at present. However, further escalation of the conflict, for example, beyond the borders of Ukraine and Russia, could very quickly result in a significant drop in air traffic and demand for commercial engine products in the countries and regions affected, which could adversely affect MTU's future business performance.

The escalating conflict in the Middle East, starting with the war between Israel and Hamas that broke out in 2023, then the direct military conflict between Israel and Hezbollah in Lebanon and the toppling of the government in Syria, shows how fragile and unpredictable the situation in this region is. Any further escalation to a wider Middle East war in which Iran were directly involved would hit global aviation extremely hard, because airlines are dependent on major airport hubs such as Dubai and Doha and the region is an important corridor for global flights. Developments in Syria in December 2024 are not currently having a major impact on aviation corridors, as Western airlines were already flying around Syrian airspace before the coup.

MTU closely follows the latest developments in customs law. It is, however, too early for an assessment of how the punitive tariffs on iron and steel imports from Canada, Mexico and China initiated by the new US administration will specifically impact MTU. Fundamentally, tariffs hamper free trade and the exchange of goods. They are – as in this case – always payable by the US importer of the goods concerned. Capacity in the aviation industry, especially in terms of engine maintenance, is scarce worldwide, and partnerships are usually planned on a long-term basis and established. Reciprocal US tariffs on European engines would, not least, therefore impair the competitiveness of US aviation firms.

Risks arising from corporate strategy

The main forms of strategy risk are misjudgments when taking decisions about investment in engine programs, the establishment of new sites and possible M&A activities. During the decision-making phase of a program, highly qualified specialists perform cost-benefit analyses based on set procedures that include the obligation to carry out a risk analysis on the basis of different scenarios. MTU's business model is based on long-term processes, particularly in the OEM segment. Many years of development, preproduction and volume production may lie between the decision to invest in a new commercial engine and the breakeven point. The risk is that the original economic and technological parameters might change over time, hence the need for frequent reassessments that take into account the most recent economic and technological developments. A decisive factor in this regard is, in particular, the success of the aircraft platforms on which the engines are deployed. MTU counters such strategy risks through a broad portfolio. This means that the company limits the impact of an individual program or aircraft platform by holding an interest in a wide range of products across all thrust classes.

In the longer term, a further identifiable risk, in addition to that arising from MTU's strategic decisions, is the arrival on the market of new competitors, e.g., from China. However, given the high financial and technological barriers to market entry, this risk is currently not regarded as critical. Although Chinese aircraft manufacturer COMAC entered the narrowbody segment with its C919 in 2023, annual production rates will only be in the double-digit range for the foreseeable future, with a global market share in the single-digit percentage range. This is partly due to the aircraft not being certified in the USA and Europe, which limits C919 orders almost exclusively to Chinese airlines and lessors.

However, changes in expectations of growth in global air traffic and the aircraft industry, climate-related regulation and price increases or a reduction in the number of aircraft sold could lead to considerable negative impacts or further adjustments of the assumptions and estimates underlying the assessment of MTU's assets and liabilities and the view of MTU's financial position.

In particular, the pricing of CO_2 and non-CO_2 emissions in aviation as well as the current high costs for the production of sustainable fuels (SAFs) can have a huge impact on the price of airline tickets, depending on the regulatory requirements in each region.

The engine industry is dominated by high investment both as development imbalance payments to the engine OEMs and as development work by MTU at the start of a new engine program. The long product lifecycles of both aircraft and engine programs have to be taken into account when assessing the return on these investments. Empirical observation indicates that the lifecycle of successful engine programs for commercial aircraft is well over 30 years from the initial purchase until the end of the program. In view of the long product lifecycle, the estimation requirements outlined above relate to long-term developments. Therefore, updated assumptions (for example, changes in the competitive situation, or expectations of growth in air traffic and the aircraft industry, or a deterioration in the number of aircraft sold, which could affect the creditworthiness of the Group's customers) have a considerable impact on MTU's systematic estimates and thus on its key financial indicators.

The impact of global crisis hot spots and the formation of geopolitical blocs, especially in terms of supply chain problems and capacity constraints, as well as macroeconomic developments make it difficult for the company to make estimates and assumptions. The estimates and judgments are derived from assumptions based on the currently available information and effects of dynamic macro- and microeconomic factors on the aviation industry as a whole and on the business partners of relevance for MTU. Changes to these assumptions and estimates could have a highly negative impact on MTU's business activities, cash flow, results of operations and financial position.

Assessment of the opportunity/risk position – Strategic

In the risk category "Strategic," the current risk report identifies no significant individual risks in the form of a deviation from planning (EBIT and liquidity). All in all, MTU considers its risks in this category to be manageable on this basis, especially in light of the measures taken to control them.

Risk category "Supply Chain"

Procurement and purchasing risks

MTU sources individual parts and components, finished products, specific services and raw materials from suppliers and third-party vendors. MTU is exposed to a risk of inadequate availability of such products. Disruption can be caused by factors such as cross-border supply chain problems caused by the geopolitical situation, for example, the Russia-Ukraine conflict and the Israel-Gaza conflict, and technical problems or bottlenecks in production capacity. MTU considers the probability of occurrence as possible and the potential impact as high. Moreover, crisis-driven price hikes (inflationary impact) could result in higher procurement costs. Given the structure of the RRSP agreements with its partners, MTU is only able to pass unexpected cost increases on to partners and customers to a limited extent in individual cases. Therefore, MTU takes the extensive measures outlined below to minimize the risks insofar as possible. MTU plans production requirements at regular intervals in close consultation with the supply chain to avoid unexpected procurement bottlenecks. Wherever it makes sense, products are validated and sourced from several suppliers. To limit inflation insofar as possible, there are multi-year supply contracts for many products. Regular supplier risk assessments, established purchasing and procurement processes, and close relationships with suppliers also help to minimize purchasing and procurement risks.

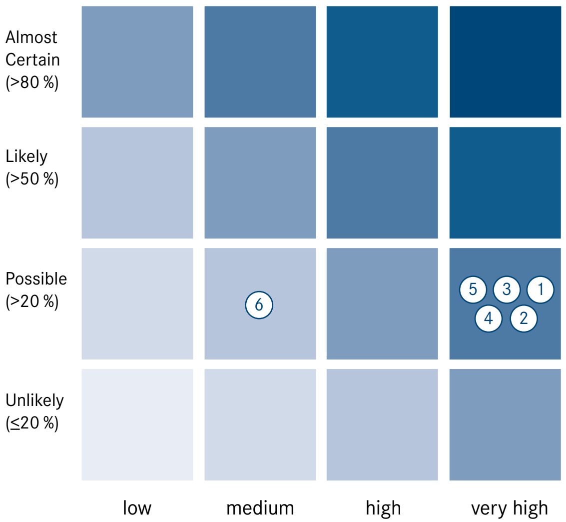
Assessment of the opportunity/risk position – Supply Chain

In the risk category "Supply Chain," the current risk report identifies no significant individual risks in the form of a deviation from planning (EBIT and liquidity). All in all, MTU considers its risks in this category to be manageable on this basis, especially in light of the measures taken to control them.

Overall assessment of MTU's risk exposure

Risks in each of the key areas of exposure described above are monitored and continuously evaluated through a risk assessment for the coming fiscal year on the basis of their probability of occurrence and quantified as a deviation relative to the currently applicable operational planning figures. In MTU's risk management process, risks are assigned to one of four probability levels. Based on quantifiable risks (>€5 million) evaluated in the risk management process, for the fiscal year 2025, MTU derives risk-based earnings exposure based on experience of around €161 million (previous year: €118 million). The OEM segment accounts for around €144 million of this, particularly in the "Programs & Projects" category, and the MRO segment for the remainder. In addition to the earnings impact, the liquidity impact of the risks is identified, monitored and addressed through the risk management process. In 2025, the identified risk factors could reduce liquidity by approximately €237 million (previous year: €209 million). However, this would be covered by available cash and cash equivalents and by credit lines that have not been drawn down. The OEM segment accounts for €183 million of the liquidity risks, particularly in the "Programs & Projects" category, and the MRO segment accounts for the remainder.

At the end of the reporting period, the quantified material liquidity risks for the three-year assessment period used for the regular reporting process were as follows:



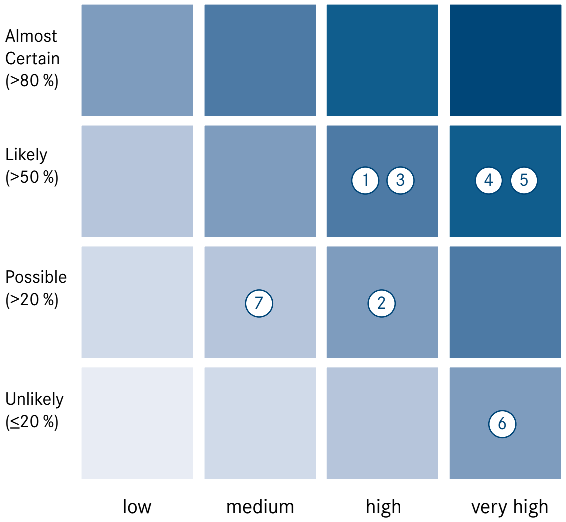
ID	Risk category	Title
1/5	Program & project risks	Higher financial impact from AOG due to reduced MRO output and higher removals
2	Legal, compliance & governance risks	Risk from claims for damages and legal costs
3	Program & project risks	Financial impact on return flows from engine program participations due to changes in tax legislation abroad
4	Financial risks	Other financial risks (financing requirements or evolution of customer payment targets)
6	Program & project risks	NGFE Phase 2 Commissioning not applicable

In the "Program & Project Risks" category in the OEM segment, particularly significant financial risks arise from the operational and financial involvement of MTU in the GTF™ fleet management plan initiated in 2023. Here, the risk driver is the capability of the PW1100G-JM program to increase production and maintenance/repair capacities in line with requirements. In this regard, the compensation payments pledged to program customers as part of the GTF™ fleet management plan serve to increase the financial burdens and therefore the risk item. The financial burdens, especially the liquidity effect, will, to a large degree, materialize in subsequent years and are included in accordance with the best-possible estimate in current corporate planning and MTU's published forecast information. Potential additional burdens in connection with the GTF fleet management plan would further impair the net assets, financial position and results of operations.

In the MRO segment, the effects of additional demand resulting from the forecast recovery in the engine maintenance business, the outcome of negotiations regarding customer payment targets and the knock-on effects of the sanctions in the Russia-Ukraine conflict must essentially be taken into account as risk drivers.

All in all, taking into account the compensatory measures, at present MTU has not identified any risks that could jeopardize its status as a going concern. Despite the tough risk situation, especially driven by the extended GTF™ fleet management plan, MTU considers the risk situation to be manageable, especially given the measures taken in this respect and the effective and appropriate risk management system that is in place.

At the end of the reporting year, the qualitative material risks reported via the regular reporting process were as follows:



ID	Risk category	Title
1	Program & project risks	Labor shortage in the aviation industry due to working restrictions
2	Program & project risks	Escalation of political conflicts / trade wars between the USA, Europe and China
3	Environment	Impact of environmental catastrophes on the market structure and demand behavior
4	Environment	Loss of reputation due to bad sustainability performance
5	Social & Human Resources	Employee turnover and higher personnel costs in Eastern Europe and East Asia due to increasing competition for workers
6	Manufacturing & Maintenance	Risks from significant aviation safety incidents that lead to claims for damages or AOG
7	Manufacturing & Maintenance	Business interruption due to major losses or attacks on the IT infrastructure

Opportunity report

The integrated opportunity and risk management system is embedded in the value-oriented management of the Group and its organizational structures and is based on the leading international standard, the COSO II Enterprise Risk Management Framework.

Opportunity category "Programs & Projects"

Basic research and ongoing development of engine technologies, followed by their deployment in end products, have made MTU one of the world's leading manufacturers of engine components. MTU's new products lead the field in terms of efficiency because they save fuel and reduce emissions, noise and costs. The A320neo, Airbus A220 and Embraer E190-E2 with GTF engines are already being used successfully in scheduled service. Since 2018, the PW800 engine family, developed in cooperation with Pratt & Whitney Canada, which is based on the same core engine as the GTF, has powered, for example, premium manufacturer Gulfstream's new generation of business jets. In order to balance out its engine portfolio in the long-haul segment, MTU has participated in the development of the GE9X, which will be the sole engine for the Boeing 777X. Thanks to this balanced portfolio, MTU expects to benefit in the decades ahead from the predicted growth in all present market segments: the regional jet, narrowbody and widebody segments. The expected growth relates to both commercial series and new components business and the spare parts and aftermarket business, which should benefit, in particular, from the business performance of the V2500 engine programs and successively from the GTF program family. Significant opportunities continue to arise for MTU in connection with its commercial engine programs, i.e., in relation to potential efficiencies and in the new engine and aftermarket business, particularly arising from the realization of the GTF™ fleet management plan and the compensation payments pledged to PW1100G customers in this regard. For further information on the GTFTM fleet management plan see *section I. Accounting principles and policies – PW1100G-JM Geared Turbofan fleet management plan (powder metal issue) in the Notes to the consolidated financial statements*.

Among its customers in the military sector, MTU has established a reputation as a highly qualified partner with comprehensive system know-how in product development, manufacturing and maintenance. In particular by driving forward its military-engine maintenance services with the German air force, MTU sees chances to strengthen its ties with Germany's armed forces.

In addition, the official start of the FCAS program (NGFE) and additional new components and aftermarket business – especially for the EJ200 engine for the Eurofighter and the TP400-D6 for the A400M military transporter – open up further business opportunities with national and international customers. These will doubtless receive a further boost from the increase in international defense budgets resulting from the geopolitical developments in the reporting period. Driven in particular by the T408 engine, the military-program partnership with GE Aerospace could generate further opportunities to participate in transatlantic programs in the future.

The development of the maintenance business in the aviation industry, in which maintenance and repair services are increasingly being offered together with the sale of the new engine (MRO integration), gives MTU the opportunity, as a consortium partner in commercial engine programs, to safeguard order volumes in the commercial maintenance segment, consolidate substitution risks for the aftermarket and spare parts business and thus soften the impact of risks associated with the spare parts market. This integrated approach to MRO enables program partners to become members of an MRO network, giving them access to the entire volume of MRO work associated with an engine series, in accordance with their share in the program. There is a variety of models for participating. For instance, partners in the MRO network might only perform repairs on their own components, or be allocated a quota of complete shop visits corresponding to their program share. Membership in an MRO network offers more moderate margins than operating as an independent maintenance and repair (MRO) provider.

The independent MRO market for engines such as the GE90 and V2500 continues to offer long-term prospects for MRO providers to participate in this steadily growing market. In particular, the increase in the number of aircraft no longer tied to the OEMs offers independent MRO providers like MTU the opportunity to gain new customers and to assume responsibility for managing the maintenance of large fleets. In this regard, MTU strives to achieve balanced growth in its maintenance and repair business by investing in further MRO programs – on the basis of independent MRO and commercial engine programs via MRO integration. In light of this, advance payments were made in the reporting year for the acquisition of further MRO program investments.

Thanks to ongoing investment in automation and focused expansion of capacity, the high demand in the OEM and MRO segments can be met cost-efficiently in the long term.

Through MTU Maintenance Lease Services B. V., Amsterdam, Netherlands, MS Engine Leasing LLC, Rocky Hill, CT, USA, and the partner companies in the PW1100G-JM MRO network, MTU aims to extend its activities in the lucrative leasing business and increase the scope of services provided in the aftermarket.

Opportunity category "Research & Development"

The risk report describes the risks associated with research and development and manufacturing, but MTU's ongoing technology and development activities also open up new business opportunities. For example, ongoing development of products and the related manufacturing technologies and, in particular, intensive involvement in developing innovative propulsion concepts in collaboration with industrial, public-sector and scientific partners, pave the way for MTU to secure a position as a strategic partner in future engine programs. This could help ensure a balanced portfolio of engines and new propulsion concepts at different life cycle phases both in the series and new components business and in the spare parts and aftermarket business. Attention should be drawn to MTU's participation in the FCAS program (NGFE), as this can also be regarded as an important driver of the ongoing development MTU's technological expertise for commercial aviation applications as well. Moreover, mention should be made of the ongoing work as part of the European Clean Air funding program that makes it possible to systematically pursue the revolutionary propulsion concepts based on the FFC (Flying Fuel Cell) gas turbine to create the technological basis for emission-free flying in the future.

The risk report refers to the challenges involved in the continued ramp-up of new or relatively new programs; here too, the challenges can be transformed into opportunities. Production processes and systems can be optimized, for example through the use of virtual engine capabilities (target and actual twins [digital twins]), predictive simulation (ICM2E), end-to-end process data management and the forecasts derived from this, and new, cutting-edge manufacturing technologies and processes can be introduced to reduce product and maintenance costs. The risk analyses undertaken to secure the ramp-up of production, backed up by the manufacturing readiness level (MRL) process and error analyses, result in timely identification of potential problems and the related lasting process improvements. The effects of these improvements are not only felt in new programs; they can also be transposed to existing ones. That leads, for example, to further cost reductions and enhanced delivery reliability. The expansion of, for example, AM (additive manufacturing) and ECM (electrochemical machining) opens up new possibilities for the application-optimized design of components and cost advantages in production.

Through continuous improvements towards operational excellence, methods, processes and leadership behavior are constantly being developed as part of Lean Management@MTU. This results in increased transparency, a focus on value creation, support in achieving ambitious targets, and faster and more sustainable problem-solving and approaches to improvement based on integrated product development (IP4E). Improved preventive approaches, a faster response to deviations from plan and sustainable and structured solutions to problems enable the company to put in place stable processes and optimize resource deployment. For further information, please refer to the section headed Research and development.

Opportunity category "Financial"

As a large part of the company's revenue comes from contracts invoiced in U.S. dollars, especially in the commercial new engines and series business (OEM) and the commercial spare parts and aftermarket business (OEM, MRO), a strengthening of the U.S. dollar against the euro would improve MTU's earnings. If there is a stabilization or short-term drop in inflation, this would have a positive effect on MTU's cost structure and hence on its business results.

See the Risk report for information on how the opportunities identified can be exploited and the associated risks avoided.

Overall assessment of opportunities

MTU has taken all the organizational measures necessary to recognize potential opportunities in good time and respond to them adequately. MTU applies the same methods in its assessment of specific opportunities as it does when evaluating risks. As a conservative approach is taken to the identification of risks and opportunities, the opportunities are necessarily low compared with the risks.

Based on the opportunities identified, MTU anticipates that the earnings opportunities in 2025 are around €10 million (prior year: €78 million), with the OEM segment, especially the "Programs & Projects" category, accounting for €5 million of this. The liquidity-related opportunities amount to €73 million (previous year: €85 million), with €63 million of this attributable to the OEM segment, especially the "Programs & Projects" category. Opportunities to extend MTU's range of products and services may initially lead to a financial burden. In view of the long cycles involved in the business model, these will only generate positive earnings in subsequent fiscal years. MTU does not currently foresee any fundamental changes in its opportunities.

Main features of the internal control and risk management system

Internal control and risk management system

MTU understands an Internal Control System (ICS) to be the principles, procedures and measures introduced at the company by its management that are aimed at the organizational implementation of management decisions. The risk management system (RMS) is a continuous and systematic process that has to be applied uniformly throughout the Group to ensure early identification, evaluation, management, monitoring and reporting of risks. The overriding objectives are to safeguard the existence of the company and its future success.

The ICS and RMS are based on the globally recognized and established framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO I) and the applicable requirements and basic elements of the audit standards issued by the German Institute of Public Auditors (IDW PS 981 and 982).

The Executive Board of MTU bears overall responsibility for establishing the ICS and RMS. They are aligned to the business model and specific requirements of the MTU Group and are an important element in its comprehensive approach to corporate governance. This comprises a framework for creating sustainable value for shareholders, customers, employees and society.

All MTU entities are included in the ICS and RMS. The local management of each entity is responsible for realizing an appropriate and effective internal control system (ICS) and RMS, based on the Group-wide requirements, and is supported in this by the central Risk Management and Internal Control functions.

The Risk Management Board, which is comprised of MTU's highest risk manager and selected heads of various functional areas, is an overarching decision-making body that examines aspects of risk management, discusses and takes decisions on reported risks or those that have to be reported to the Executive Board, and oversees the functioning of the risk management system.

The central Internal Control function at MTU, which comprises the Group ICS Coordinator and the Local ICS Coordinators appointed at each MTU site, coordinates and monitors, on behalf of the Executive Board, the maintenance and ongoing development of the internal control system by the specialist departments at the sites concerned. The central Internal Control function also organizes the regular and ad hoc tests of the appropriateness and effectiveness of the ICS and reports in this regard to the uppermost governing body and/or the Supervisory Board's Audit Committee.

MTU's internal audit function, which is process-independent, plays an important role in checking the effectiveness of, and improving, the ICS and RMS. It regularly assesses, and on this basis helps to enhance, the controlling and monitoring systems. It is also considered to have an advisory function, contributing to improving business processes and, ultimately, the effectiveness of the ICS. The Group Audit is based on the standards of the German Institute for Internal Audits (DIIR) and the binding elements of the Global Internal Audit Standards (GIAS) of the Institute of Internal Auditors (IIA) in their respective current versions.

As part of its supervisory role, the Audit Committee of the Supervisory Board discusses the risk management in place and the audits by the internal audit function. In accordance with Section 107 (3) of the German Stock Corporation Act (AktG), as amended by the German Accounting Law Modernization Act (BilMoG), it is responsible for monitoring the appropriateness and effectiveness of the RMS, the ICS, the internal auditing systems, the financial reporting process and the audit of the financial statements.

Compliance Management System

The RMS and ICS are complemented by a compliance management system (CMS), which is aligned to the company's risk situation.

MTU's compliance management system is based on the requirements of the IDW AsS 980 assurance standard published by the Institute of Public Auditors in Germany and the Good Practice Guidance on Internal Controls, Ethics, and Compliance issued by the Organisation for Economic Co-operation and Development (OECD).

As the highest decision-making authority, the CEO bears the responsibility for the company's business ethics and anti-corruption policy. The central functions responsible for ensuring compliance are a Group-wide Compliance Officer and the Compliance Board.

MTU has implemented a number of measures with regard to its organizational structures and processes to minimize these risks and to safeguard compliance. In particular, central functions with managerial authority have been set up to monitor and enforce compliance with laws and regulations in the individual divisions (for instance, the Quality division is responsible for compliance with aviation authority regulations, while the Environmental Protection/Occupational Health and Safety division ensures that environmental protection regulations are adhered to). Above and beyond that, measures have been put in place at the company level to minimize the risks associated with compliance issues.

The corporate culture at MTU is characterized by trust and mutual respect. The observance of legal and ethical rules and principles plays a central role in this respect. They are set out in a Code of Conduct, which has been implemented. This Code of Conduct embodies MTU's corporate culture and reflects its resolve to comply strictly with the relevant laws and internal regulations. It is a Group-wide guide to ethical business relations.

The Compliance Officer submits quarterly reports to the Executive Board and the Supervisory Board's Audit Committee, which in turn reports to the plenary meetings of the Supervisory Board. The Supervisory Board's Audit Committee oversees the Executive Board's compliance activities. The company has established a global whistleblower system that allows employees and external stakeholders to report suspected cases of misconduct confidentially to the Compliance Officer.

MTU strives to continuously develop its compliance system. That includes raising employees' awareness of compliance-related matters.

Description of the principal features of the accounting-related ICS and RMS

The current recommendations of German Accounting Standard (GAS) 20 have been applied in this section of the combined management report concerning the main features of the accounting-related internal control and risk management system.

Objectives and components

MTU's Executive Board and Supervisory Board, particularly the latter's Audit Committee, attach the greatest importance to ensuring the regularity, accuracy and reliability of MTU's financial reporting. The accounting-related internal control and risk management system applicable for the MTU Group's financial statements helps ensure systematic compliance with these internal and external accounting requirements.

- The accounting-related risk management system (RMS) is an integral part of the Group's company-wide risk management system. It forms the basis for the uniform and appropriate handling of risks and for communicating them within the Group and thus supports proper financial reporting at the Group. It forms the basis for the regularity and reliability of Group accounting and therefore for compliance with the statutory regulations relevant to MTU as a capital market-oriented company.
- The accounting-related internal control system (ICS) is an integral part of the Group's company-wide ICS. The design of the accounting-related internal control system (ICS) meets the requirements of the German Accounting Law Modernization Act (BilMoG), the definition provided by the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer e.V. – IDW), the internationally recognized and established framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO I), the German Corporate Governance Code (GCGC) and the features specific to MTU. It forms the basis for the regularity and reliability of Group accounting and therefore for compliance with the statutory regulations relevant to MTU as a capital market-oriented company.
- The setting up and maintenance of an accounting-related RMS and ICS observe the cost-effectiveness aspect to protect assets.

Main features

- MTU has a clearly defined management and corporate structure. Key cross-organizational accounting functions, including the accounting-related RMS and ICS, are coordinated by the Group Accounting function, which has the authority to issue instructions within its area of competence. At the same time, the subsidiaries have sufficient independence and take responsibility for financial reporting.
- Appropriate guidelines and materials (e.g., accounting policies / financial reporting guidelines / training materials) have been introduced and/or are provided centrally and are regularly updated. The Group Accounting function, comprising the Group Financial Reporting function and Accounting Policies department, is available for questions on accounting and financial reporting.
- Group Financial Reporting coordinates and leads the preparation of the consolidated financial reports (accounting), on the basis of a centrally defined data reporting system for Group companies. Group Financial Reporting helps the Group companies implement its reporting system by providing a uniform chart of accounts for the Group, along with reporting forms that reference the chart of accounts and other supporting materials (e.g., quality assurance tools).

- The preparation and quality assurance of the data reported by the MTU Group companies to prepare consolidated Group reporting is carried out in accordance with Group accounting guidelines (IFRS), supplemented by the central guidelines and supported in a decentralized manner by materials in the Finance departments of MTU Group companies.
- As a supplementary control measure, (plausibility) and quality control checks on the data reported by MTU Group companies are carried out by the Group Financial Reporting department and during the aggregation/consolidation process for the consolidated financial statements.
- The employees whose functions are responsible for performing proper accounting are obligated to follow the Group-wide Code of Conduct and the statutory and supplementary regulations (e.g., accounting and financial reporting guidelines).
- The functions involved in the accounting process are suitably equipped, both in quantitative and qualitative terms. In this context, the structure and workflows are reviewed at regular intervals with the support of external consultants where necessary and through discussions with peer group companies.
- The (specialist) qualifications of the employees in the accounting-related functions represent a key driver for the regularity and accuracy of Group accounting. Against this background, the appropriate training and professional development of officers is supported by means of internal and external training measures, specialist information is provided as required, and the effectiveness and appropriateness of the training measures are systematically monitored and improved on a targeted basis.
- Accounting is supported by the ERP system through structured interfaces between the ERP accounting systems of the Group companies and the central consolidation and Group reporting system. The systems are protected against unauthorized access and tampering by means of appropriate mechanisms. As far as possible, standard software is for financial reporting. The accounting-related IT systems and processes (e.g., IT general controls) undergo regular internal and external reviews based on an extensive concept.
- Risk-mitigating controls are in place for accounting-related processes. Examples are standardized reporting formats, IT and process controls, further compensatory management controls and a rigorous level-of-authority approval concept for integrated quality assurance of book-keeping and financial reporting information. The appropriateness and effectiveness of the established internal control system (ICS) are regularly evaluated and improved where necessary by the central function's defined ICS Coordinators at the level of MTU Group companies and the Group, and reported to the uppermost governing body in respect of the appropriateness and effectiveness of the established ICS.
- The accounting process, the consolidated financial statements and the consolidated management report, as well as all material financial reporting information included herein, are subject to the Group auditor's annual audit. The same auditor also reviews the condensed consolidated financial statements and interim Group management report in the half-year financial report. As a supplementary measure, an external audit or review of the data reported and/or separate financial reporting information is carried out at the level of accounting-relevant MTU Group companies.
- The preparation and review of non-financial and/or sustainability reporting, in the form of a sustainability statement in the consolidated management report, are performed in accordance with the statutory reporting regulations relevant in this regard, supplemented and operationalized in a decentralized manner by guidelines in the responsible departments of MTU Group companies and coordinated by the Group Sustainability Management & Reporting function. This Group function aggregates/consolidates the reporting data compiled in a decentralized manner and carries out compensatory (plausibility) checks for the purpose of quality assurance measures. The non-financial reporting processes, including the corresponding RMS and ICS, are coordinated and supported by the Group function and, on behalf of the Executive Board, are monitored and advised by an interdisciplinary Corporate Sustainability Board.

Group Sustainability Statement

General information (ESRS 2)

Basis for preparation (BP)

General basis (BP-1)

This sustainability statement has been prepared on a consolidated basis for the MTU Group ("MTU") in full compliance with the European Sustainability Reporting Standards (ESRS). It also fulfills the requirements of the non-financial reporting obligations pursuant to Sections 289b et seq. and 315b to 315c of the German Commercial Code (HGB) (combined non-financial statement). For information on the implementation of the requirements for the parent company's non-financial reporting obligations pursuant to commercial law, see *Disclosures stemming from other legislation or generally accepted sustainability reporting pronouncements.*

MTU's sustainability statement for fiscal year 2024 covers the period from January 1, 2024 to December 31, 2024. The consolidated group is identical to the consolidated group in the consolidated financial statements and thus includes the companies listed below. For further information on the consolidated group, please refer to the *section headed Consolidated group in the chapter I. Accounting principles and policies in MTU's consolidated financial statements.*

- MTU Aero Engines AG incl. MTU Versicherungsvermittlungs- und Wirtschaftsdienst GmbH
- 3D.aero GmbH[1]
- eMoSys GmbH
- MTU Aero Engines (Shanghai) Ltd.
- MTU Aero Engines North America Inc. incl. MS Engine Leasing LLC. GmbH
- MTU Aero Engines Polska sp. z o.o.
- MTU Maintenance Berlin Brandenburg GmbH
- MTU Maintenance Canada Ltd.
- MTU Maintenance Dallas Inc.
- MTU Maintenance do Brasil Ltda.
- MTU Maintenance Hannover GmbH
- MTU Maintenance Lease Services B.V. incl. MTU Aero Engines Finance Netherlands B.V.
- MTU Maintenance Serbia d.o.o.
- MTU Maintenance Australia Pty. Ltd. (former MTU Maintenance Service Centre Australia Pty. Ltd.)
- MTU Maintenance Service Centre Ayutthaya Ltd.
- MTU Maintenance Singapore Pte. Ltd.

[1] MTU Aero Engines AG took over 3D.aero GmbH, based in Hamburg, on December 16, 2024.

In the reporting period, no subsidiary undertakings included in the consolidation are exempt from individual or consolidated sustainability reporting under Articles 19a(9) or 29a(8) of Directive 2013/34/EU.

This sustainability statement covers not only MTU's own operations but also its upstream and downstream value chain. The double materiality assessment of impacts, risks and opportunities has been carried out for the entire upstream and downstream value chain. The policies, actions and targets relating to material impacts, risks and opportunities cover the entire value chain, unless otherwise stated in the topic-specific sections of the report. Where estimation methods are used for metrics due to incomplete data on the upstream and/or downstream value chain, in the following section *Specific circumstances (BP-2)*. MTU also made use of the transitional provisions in accordance with ESRS 1 Section 10.2 paragraphs 132 and 133. In preparing its first-time reporting in accordance with ESRS, MTU was faced with the challenge of collecting comprehensive data on its upstream and downstream value chains, although not all the necessary information was available. The main reasons for this are the complexity of global value chains, the differing degrees of data availability among MTU's partners, and technical challenges in integrating data systems. These factors made it difficult to collect all the information for the entire upstream and downstream value chain for the reporting year. The steps MTU took in the reporting year to deal with these challenges included making changes to how its sustainability management was organized in order to improve the interdisciplinary exchange of information between departments and to make the collection and analysis of sustainability data more effective. In addition, agreements were made with service providers to identify existing data gaps and to develop strategies for closing them.

More detailed information on MTU's value chain can be found under *Strategy, business model and value chain (SBM-1)*.

In the section on product quality and flight safety, MTU utilized the option under ESRS 1 Section 7.7 to omit information on quantitative targets for reasons of confidentiality. The option of exemption from disclosure of impending developments or matters in the course of negotiation, as provided for in articles 19a(3) and 29a(3) of Directive 2013/34/EU and the option to omit detrimental information (Section 289e HGB) have not been used.

Specific circumstances (BP-2)

Time horizons

MTU deviates from the time horizons specified by ESRS and has defined the following short-, medium- and long-term time horizons in accordance with the existing MTU-specific periods of operational and strategic planning:

/ forecast: short-term / below 1 year,
/ operational planning: medium-term / from 1 to 3 years, and
/ strategic planning: long-term / from 4 to 15 years.

Value chain estimation

For metrics related to data points from other EU legislation, consideration of value chain information is mandatory, despite the ESRS transitional provision. For the calculation of Scope 3 GHG emissions value chain estimations have been used. More information on the estimation approach and the respective level of accuracy can be found in the table below and in the respective topic section. MTU is endeavoring to improve value chain data quality in the future. However, no detailed action plan in this regard can be published at this time.

ESRS		Metric	Description
E1	E1-6 44(c) E1-6 51 E1-6 AR 46(g), 46(j)	Scope 3 GHG emissions	To calculate Scope 3 GHG emissions, value chain estimations were made using indirect sources. Where possible, MTU uses activity data and industry average estimations from emission factor databases in its carbon accounting. Further information on the estimation of GHG emissions can be found in the respective minimum disclosure requirements for the use of estimations and outcome uncertainties (see the *section Gross Scopes 1, 2, 3 and Total GHG emissions (E1-6)*).

Outcome uncertainty and external validation

Forward-looking data and information contained in this sustainability statement are generally subject to a certain degree of uncertainty. In addition, the metrics reported in this statement have not been validated by any external body other than the assurance provider, unless otherwise stated in the annex to this sustainability statement under *MDR-M disclosures*.

Incorporation by reference

In accordance with ESRS 1 Section 9.1 ("Incorporation by reference"), MTU has utilized the option to report on certain disclosure requirements by referencing other documents. The following table outlines all ESRS disclosure requirements that have been partially or fully incorporated by reference.

ESRS Disclosure Requirement	Reference Section and page	Sustainability statement Section and page
ESRS 2 GOV-3-29	Management compensation report, from p. 21	GOV–3 Integration of sustainability-related performance in incentive schemes, p.116 f.
ESRS E1-13	Management compensation report, from p. 21	ESRS E1-13, p. 126 f.

References to further information outside the (Group) sustainability statement are not part of ESRS reporting and are marked accordingly (*).

Disclosures stemming from other legislation or generally accepted sustainability reporting pronouncements

Disclosures based on the German Commercial Code (HGB)

This sustainability statement for MTU, which has been prepared in accordance with ESRS, also fulfills the requirements for the non-financial (Group) statement and thus represents the combined non-financial statement for the MTU Group and MTU Aero Engines AG.

In fulfillment of its reporting obligations under commercial law, MTU declares:

- The first-time and full use of ESRS as a framework in accordance with Section 315c(3) HGB in conjunction with Section 289d HGB is based on the importance of ESRS as the European sustainability reporting standard adopted by the European Commission.
- The double materiality assessment carried out by MTU covering the sustainability matters to be taken into account in accordance with ESRS 1 AR16 also addresses the five matters specified in HGB. It should be noted in this context that the sustainability matters pursuant to ESRS are not fully congruent and cannot be assigned to the matters pursuant to HGB. A reconciliation guide is provided below: "Environmental matters" are addressed by ESRS E1 to E5; "Employee matters" are addressed by ESRS S1 and S2; "Respect for human rights" is addressed at various points in the ESRS social standards (in particular by the information on human rights policy concepts in ESRS S1 and S2); "Corruption and bribery" is addressed by the sub-topic "Corruption and bribery" in ESRS G1. "Social matters" are addressed by the (sub)topics of ESRS S3 and S4. As described under *Description of the process to identify and assess material impacts, risks and opportunities (IRO-1)* and *Disclosure requirements in ESRS covered by the undertaking's sustainability statements (IRO-2)* for the double materiality assessment, no relevant topics were identified for the "Social matters" aspect. There are no material risks arising from MTU's own operations, business relationships, products, or services that are highly likely to have severe negative impacts on non-financial matters pursuant to Section 289c HGB.
- MTU's most significant non-financial performance indicators are presented in the *Key performance indicators section under The MTU Group in the combined management report*. Compared to the previous year, the "women in leadership positions" indicator was added as a further significant non-financial performance indicator, and supplements the non-financial performance indicators reported in the previous year, namely "CO_2" (with the components "CO_2 abatement through sustainable measures" and "remaining CO_2 emissions") and "training days per employee".

The following is provided as supplementary information to the MTU Aero Engines AG non-financial statement pursuant to Section 289b HGB:

- MTU has not used a framework for the non-financial statement relating to MTU Aero Engines AG pursuant to Section 289b HGB because MTU Aero Engines AG believes that only an ESRS sustainability statement for the MTU Group is relevant for its stakeholders.

- MTU Aero Engines AG is the MTU Group's parent undertaking and is responsible for all business decisions. With regard to the content of the non-financial statement for MTU Aero Engines AG pursuant to Section 289b HGB, reference can therefore be made to the sustainability statement for the Group, which also fulfills the requirements for the combined non-financial statement prepared in accordance with Sections 289b et seq. and 315b to 315c HGB.

Disclosures based on the EU Taxonomy Regulation

- With this sustainability statement, the MTU Group is also complying with the requirements of Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (hereinafter referred to as the EU Taxonomy Regulation) (see *Disclosures pursuant to Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation)*).

Governance

The role of the administrative, management and supervisory bodies (GOV-1)

This section contains information on the composition of the Executive Board and Supervisory Board and describes their roles and responsibilities as well as their access to specialist knowledge and expertise in sustainability matters.

The Executive Board is responsible for managing and monitoring MTU's impacts, risks and opportunities, taking into account that social and environmental factors influence the company's success and that MTU's activities impact both people and the environment. It is responsible for implementing the sustainability strategy and targets and for monitoring sustainability efforts implemented in the MTU Group and organizational structures via the Corporate Sustainability (CS) management system (see illustration).

The CEO takes on the role of Chief Sustainability Officer (CSO). Supported by the advice of the Corporate Sustainability Board (CS Board), the CSO is responsible for defining the company's positioning and its sustainability strategy and objectives. This includes evaluating sustainability matters and adapting the company's strategy and business model. In this way, sustainability is integrated into MTU's corporate decision-making processes. At Executive Board level, the CEO/CSO is responsible for all product development. This also includes the technology roadmap and the development of innovative and more sustainable propulsion systems. The CFO is responsible for corporate reporting, including the sustainability statement. The above responsibilities at management level are set out in the rules of procedure of the Executive Board, the allocation of responsibilities and, for the operational level, in MTU's sustainability reporting governance.

The Executive Board brings together sector and product-specific as well as international experience. The members have expertise in the core areas of MTU's business activities, including the development and production of new propulsion systems and the development of new markets. The range of expertise of the Executive Board reflects the company's geographical diversification. The Executive Board also has the experience required to monitor MTU's material impacts, risks and opportunities. MTU's Executive Board comprises four members; in the reporting period, it consisted of one female member and three male members, which corresponds to a gender ratio of 33%.

In accordance with statutory provisions, the Supervisory Board is responsible for monitoring corporate reporting, including the sustainability statement. In doing so, it incorporates sustainability matters into its monitoring and advisory functions. The Board's tasks include overseeing the implementation of the sustainability strategy, target setting and performance management. The Supervisory Board and its Audit Committee are responsible for reviewing the sustainability statement in the management report and for monitoring the accounting process. The Audit Committee makes recommendations to ensure the integrity of the accounting process, including with regard to sustainability reporting. The responsibilities of the Supervisory Board and its Audit Committee are set out in the rules of procedure for the Supervisory Board.

The Supervisory Board has twelve members, and consisted of five female and seven male members in the reporting period. This corresponds to a gender ratio of 71%. In accordance with the requirements of Germany's two-tier board system, employees are represented by employee representatives on the Supervisory Board, which is subject to equal co-determination. MTU's Supervisory Board has carefully considered the recommendations of the German Corporate Governance Code (GCGC) on the independence of the members representing shareholders. With reference to its composition in fiscal year 2024, the Supervisory Board considers all its members to be independent.

The Supervisory Board of MTU shall be composed of individuals whose collective competencies enable effective advice and oversight of the Executive Board concerning all business activities - including sectors, products, and geographical locations - as well as MTU's strategy and its response to emerging societal and technological challenges. The essential components of this competency spectrum are outlined in the Supervisory Board's profile of skills and expertise. The Supervisory Board has expertise in areas such as the aviation industry, supply chain & operations, risk management & compliance, marketing & sales, and international experience in relation to relevant end markets, future technologies/digitalization & IT and sustainability. When exercising its appointment powers, the Supervisory Board also takes sustainability-related experience, skills and qualifications into account. The Supervisory Board resolved to expand its profile of skills and expertise in the reporting year. The competence profile, which has been specified in the field of sustainability, will be taken into account in the annual self-assessment in the future.

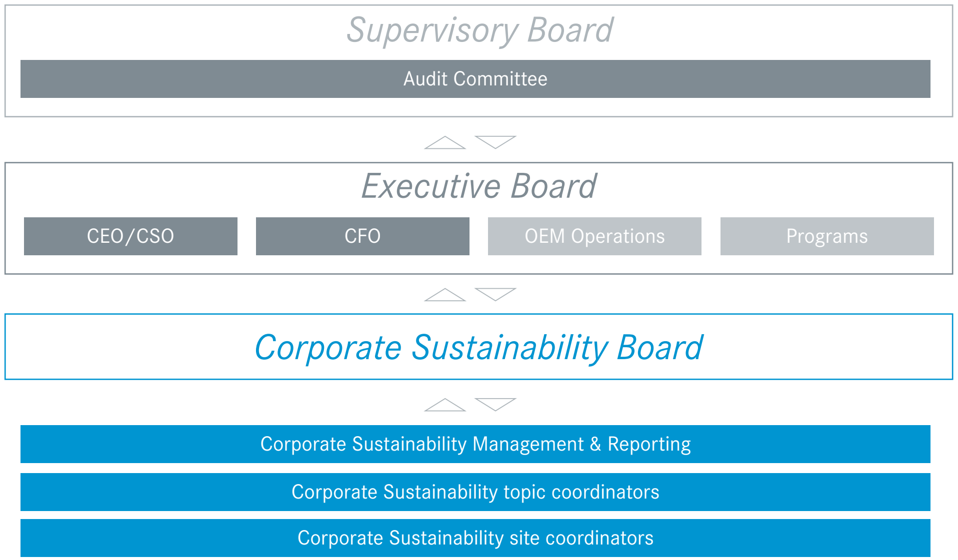
In the reporting year, the Executive and Supervisory Boards of MTU received training on the regulatory requirements of CSRD and ESRS for sustainability reporting and on related ESG topics and sustainability matters they contain. As part of this, the Boards also addressed MTU's material impacts, risks and opportunities. If necessary, internal or external experts are involved in preparations for decision-making.

Further information on the composition of the Executive and Supervisory Boards and the experience of Board members in relation to the company's sectors, products and geographical locations can be found in the *section of the combined management report headed Corporate governance statement* and in the Board member resumes available on the MTU website.

The CS Board is tasked by the Executive Board and the CSO with the operational implementation of sustainability management, with the CS Board acting as an advisory and (preparatory) decision-making body. It consists of members of the first management level below the Executive Board who hold corporate functions relevant to sustainability. These include purchasing & logistics, corporate quality & environmental sustainability, corporate strategy, human resources, corporate communications & public affairs, compliance, finance, and development & technology. The CS Board is responsible for driving sustainability forward at MTU, controlling CS activities on behalf of the CSO, and adopting CS actions and initiatives. The CS Board supervises sustainability-related policies, targets, action plans, and dedicated resources. It also oversees sustainability reporting and hence the preparation of the annual sustainability statement. The CS Board reports directly to the CSO and regularly to the entire Executive Board as well as the Supervisory Board and its Audit Committee.

With regard to the annual update of MTU's double materiality assessment, the CS Board is regularly informed of the results of the individual process steps. The CS Board discusses the results of the double materiality assessment together with the Executive Board, including the determination of the threshold value and the resulting material impacts, risks and opportunities. The Supervisory Board and its Audit Committee are also informed about the results of the double materiality assessment, the material impacts, risks, and opportunities, and the planned content of the sustainability reporting.

MTU organization regarding sustainability matters



Information provided to and sustainability matters addressed by the undertaking's administrative, management and supervisory bodies (GOV-2)

Within the MTU organizational structure, overarching sustainability goals are defined by the Executive Board and the CSO. The CS Board provides suitable mechanisms for measuring outcomes and implements these through an interdisciplinary team of topic coordinators and site coordinators.

The CS Board meets at least every two months and invites representatives from specialist departments and other operational functions as required. It reports quarterly to the Executive Board and/or CSO and the Supervisory Board on material impacts, risks and opportunities, the implementation of due diligence, and the effectiveness and outcomes of the agreed policies, actions and targets. Information on the results of the double materiality assessment, the content of the sustainability statement and the progress made on actions and targets are part of the agenda for the annual meetings of the Audit Committee and the Supervisory Board. Monitoring of the sustainability statement is anchored in the annual meeting agenda of the Audit Committee and is an integral part of the Supervisory Board's annual meeting to discuss the financial statements.

The concept of sustainability is a central component of MTU's strategy and business model, as explained in more detail in the *Strategy, business model and value chain (SBM-1)* section. Sustainability is reflected in the respective strategic priorities, including MTU's Clean Air Engine (Claire) technology agenda. The Executive Board and the CSO function are responsible for the assessment of and changes to sustainability-related aspects of MTU's strategy and business model, taking into account material impacts, risks and opportunities. MTU's overarching sustainability targets are systematically integrated into operational objectives at department and site level. This ensures that relevant sustainability matters are included in decision-making processes. In addition, MTU continuously reviews the extent to which it can embed sustainability even more firmly in decision-making processes, including possible medium-term adjustments to corporate regulations.

In the reporting period, all material impacts, risks and opportunities (see *List of material impacts, risks and opportunities in the annex to the sustainability statement*) identified in MTU's double materiality assessment were addressed by the CS Board and discussed with the Executive Board, the Supervisory Board and its Audit Committee.

Integration of sustainability-related performance in incentive schemes (GOV-3)

The compensation and incentive schemes for members of the Executive Board are linked to sustainability matters. The performance evaluation includes specific sustainability-related targets. Performance metrics are utilized as benchmarks and are included in the management compensation system. Climate-related considerations and greenhouse gas (GHG) emission reduction targets are also taken into account in the compensation of Executive Board members. The compensation of Supervisory Board members does not include any share-based or sustainability-related compensation components. The disclosures on the specific sustainability-related incentive systems and the sustainability-related compensation policy as well as the inclusion of climate-related factors in the Executive Board's performance plans and the variable compensation components dependent on these targets (ESRS 2 GOV-3-29 and ESRS E1-13) are included in the *Management compensation report section of the annual report* and are also an integral part of this (Group) sustainability statement.

Statement on due diligence (GOV-4)

The following overview explains how and where the application of the main aspects and steps of the corporate due diligence process are reflected in the sustainability statement: The outcome of core elements of MTU's sustainability due diligence process already informs its assessment of impacts, risks and opportunities and will continue to do so in the future.

Core elements of due diligence	ESRS disclosure	Reference (page number) sustainability statement
Embedding due diligence in governance, strategy and business model	• ESRS 2 GOV-2: Information provided to and sustainability matters addressed by the undertaking's administrative, management and supervisory bodies	116
	• ESRS 2 GOV-3: Integration of sustainability-related performance in incentive schemes	116
	• ESRS 2 SBM-3: Material impacts, risks and opportunities and their interaction with strategy and business model; and topical ESRS that consider the interaction between business prospects and material sustainability matters	123, 148, 164, 184

Core elements of due diligence	ESRS disclosure	Reference (page number) sustainability statement
Engaging with affected stakeholders in all key steps of the due diligence	• ESRS 2 GOV-2: Information provided to and sustainability matters addressed by the undertaking's administrative, management and supervisory bodies	116
	• ESRS 2 SBM-2: Interests and views of stakeholders; topical ESRS: reflecting the different stages and purposes of stakeholder engagement throughout the due diligence process	119
	• ESRS 2 IRO-1: Description of the process to identify and assess material impacts, risks and opportunities	125
	• ESRS 2 MDR-P: Minimum Disclosure Requirements for policies in topical disclosures	149, 160, 165, 185, 193, 195
Identifying and assessing negative impacts	• ESRS 2 IRO-1: Description of the process to identify and assess material impacts, risks and opportunities, including application requirements related to specific sustainability matters in the relevant ESRS	125
	• ESRS 2 SBM-3: Material impacts, risks and opportunities and their interaction with strategy and business model	123, 148, 164, 184
Taking action to address those negative impacts	• ESRS 2 MDR-A in topical ESRS regarding actions taken and planned, including transition plans to address the impacts	150, 161, 173, 189, 194
Tracking the effectiveness of these efforts and communicating	• ESRS 2 MDR-M in topical ESRS regarding metrics	209
	• ESRS 2 MDR-T in topical ESRS regarding targets	153, 162, 178, 192, 194, 199

Risk management and internal controls over sustainability reporting (GOV-5)

At MTU, sustainability risks are taken into account in the Group-wide risk management system (RMS). The RMS is based on international (e.g. COSO) and national frameworks (e.g. the IDW auditing standards). Detailed information on sustainability-related risks in the context of the double materiality assessment and their integration into the RMS (including mitigation strategies) are discussed in the chapter *Material IROs and interaction with strategy and business model (SBM-3)* in the sustainability statement. Sustainability-related risks and opportunities are identified, assessed on a quarterly basis, and reviewed by the CS Board. Similar to other risks, sustainability risks are assessed according to the extent of their financial magnitude and their likelihood of occurrence. Operational risk management is carried out at the level of the individual divisions and subsidiaries. These units are responsible for identifying, assessing, controlling and monitoring their risks and documenting them in a central risk management tool. Risk reports are prepared in parallel with the quarterly financial statements and any risks that arise during the year are reported immediately. Risks are assigned to categories based on the potential deviation from EBIT or cash flow and multiplied by the four types of likelihood of loss occurrence. Material sustainability risks reviewed by the CS Board are reported to the Risk Board, and as such included in regular risk management reporting to the Executive Board and the Audit Committee.

The internal control system (ICS) over financial reporting is designed to guarantee reliable financial reporting and preparation of the financial statements. Internal controls over sustainability reporting (ICSR) serve to ensure the reliability and integrity of the disclosures in the sustainability statement and are intended to minimize the risk of incorrect data collection or presentation in the reporting. To date, MTU's ICSR have covered selected sustainability-related metrics, in particular the sustainability-related metrics underlying Executive Board compensation. Generally, the following basic ICSR elements are used for the sustainability reporting metrics:

A data management software is used to collect data and to calculate metrics reported in the sustainability statement. Information and data from MTU sites are to be reported by local data collectors and validated by site validators. For most datapoints, a control is automatically carried out to ensure that the values are consistent with those of the previous year. Significant deviation requires further confirmation and documentation in the data management software. Consolidated data is also validated at Group level. The process of data collection, metric definition and metric calculation are reviewed annually by the responsible departments. As a standard principle, all data inputs in the data collection process for sustainability metrics require documented evidence.

Further information on the RMS and ICS, including scope, main features and components as well as a description of the regular reporting to the governance bodies is available in the chapter *Main features of the internal control and risk management system in the combined management report.*

Strategy

Strategy, business model and value chain (SBM-1)

MTU's portfolio covers the entire lifecycle of commercial and military aircraft engines and aero-derivative industrial gas turbines. The company's activities range from development, manufacturing and marketing to maintenance. MTU has technological expertise in low-pressure turbines, high-pressure compressors and turbine center frames, and in repair techniques and manufacturing processes. Through risk- and revenue-sharing partnerships, it is involved in important national and international technology programs, including with GE Aerospace and Pratt & Whitney. In the military sector, it has been the leading industrial partner to the German armed forces for decades.

MTU operates in two segments: the OEM business (Original Equipment Manufacturing) and MRO business (Maintenance, Repair and Overhaul). The OEM segment covers new commercial engines, including spare parts, and the whole of the military sector. The MRO segment comprises the commercial maintenance activities.

Further information on MTU's corporate strategy, significant groups of products and services offered as well as significant markets and customer groups served can be found in the *chapter The MTU Group within the combined management report*.

In 2021, MTU launched the 2025+ sustainability program, which is divided into the following six areas of action: corporate governance, product, procurement, production, maintenance, and employees and society. The strategy addresses upcoming challenges, critical solutions and projects to be implemented that relate to material sustainability matters. Innovation plays an important role in the company; for example, the Claire technology roadmap aims to realize the vision of climate-neutral flying. MTU's sustainability targets are aligned with the EU Green Deal, which is based on the Paris Agreement and aims to achieve climate neutrality by 2050 in order to limit global warming to 1.5 °C.

MTU pursues a sustainability strategy aligned with the sustainability program and the 2025+ goals. The strategy is anchored throughout the Group and aims to achieve long-term value creation.

The company has defined sustainability targets that cover its product and service groups, customer categories, geographical areas and relationships with stakeholders. The aim is to achieve the following objectives: comprehensive sustainability management and further development of a culture of compliance, including the adoption of a Group-wide climate strategy; top priority for product quality and flight safety; human and employee rights as central components of MTU's business relationships, a resource- and environment-friendly value chain; continuous improvement of resource efficiency; active and targeted employee development at all hierarchy levels; a responsible role in society and development of research collaborations for joint knowledge building. In the area of products, MTU is working to reduce emissions by developing more efficient technologies and optimizing existing products, for example. MTU seeks partnerships with customers from the aviation industry that are based on shared sustainability principles. As a global company, MTU focuses on promoting sustainable innovations. Relationships with stakeholders are strengthened by transparent communication and collaborative initiatives to promote dialogue about sustainability. More information on this can be found in the *section Interests and views of stakeholders (SBM-2)*.

MTU's strategic elements relating to sustainability matters include a large number of initiatives and projects targeting current and future challenges. Key challenges include adapting to rapidly changing regulatory requirements, technological change in the aviation industry and the need to further integrate sustainable business practices – which MTU is responding to by, for example, developing new generations of engines and implementing circular economy principles. For a detailed description of the relevant solutions or projects, please refer to the topic-specific reporting sections of the sustainability statement.

Number of MTU employees by region

Area	Headcount
Germany	9,241
Europe excluding Germany	1,733
Americas	954
Asia-Pacific	25

MTU's position in the value chain encompasses research and development, component production, module assembly, quality control and testing, sales and marketing, and maintenance. Key players in the value chain include mines and smelters (raw materials), suppliers of engine parts (intermediate products), customers (engine OEMs, airlines), airframe manufacturers and end users (passengers).

MTU's sales channels vary depending on the business segment. In the OEM business, MTU uses its strategic partnerships and joint ventures with other companies in the aviation industry, such as Pratt & Whitney and General Electric. These partnerships enable MTU to jointly develop and market engines and components. In the MRO business, MTU operates a sales network of maintenance centers around the world, including locations in Europe, Asia and North America. MTU works directly with airlines to sell its maintenance services.

The following table provides a schematic representation of MTU's value chain.

MTU value chain

Upstream value chain		MTU's own operations	Downstream value chain		
Raw materials (indirect suppliers)	Intermediate products (direct suppliers)	Manufacturing and maintenance	Processing by engine OEMs and cell manufacturers	Use phase (airlines)	End of life

Specialized technology partners are among the most important business relationships in MTU's value chain, both on the supplier and customer side. In the aftermarket business, MTU benefits from a strong engine portfolio. MTU secures necessary input via a global network of universities, research institutes and companies. To maintain its technological expertise, it is essential for MTU to have a strong presence in research and to develop propulsion systems designed to reduce emissions. MTU follows a comprehensive approach to gathering, developing, and securing its value chain inputs. The company endeavors to maintain its leading market position by reliably sourcing high-quality materials, investing in research and development, protecting intellectual property and promoting a skilled workforce. MTU creates outputs in several ways to provide current and expected benefits for customers, investors, and other stakeholders. New engine designs or components can result in higher efficiency, lower fuel consumption and lower emissions for customers. These developments improve aircraft operation and reduce operating costs, which also benefits society and the environment. MTU supports its customers with individual engine-related services aimed at optimizing costs for customers over the engine's useful life and extending maintenance cycles. This leads to fewer shop visits and shorter downtimes for the customers during engine removal and installation on the aircraft. The focus here is on achieving sustainable profitability and generating shareholder value. These outputs enable MTU to win and retain customers and secure ongoing capital for future investments.

Interests and views of stakeholders (SBM-2)

MTU engages in continuous dialogue with its key stakeholders, focusing on knowledge sharing, networks, and collaboration. The aim is to better understand stakeholders' needs and expectations in order to take these into account in MTU's strategy and objectives. This dialogue makes it possible to find common interests and strengthen innovation and competitiveness. Dialogue with partners in order to work together on future-oriented solutions for more sustainable aviation is an elementary process here. Stakeholder engagement is characterized by continuous and open dialogue that addresses the company's activities and their impact on the environment and society. The results of this are primarily incorporated into the double materiality process (see *Description of the process to identify and assess material impacts, risks and opportunities (IRO-1)*). The Executive Board, Corporate Sustainability Board and Supervisory Board are involved in this process. The Boards are also informed of the feedback and views of stakeholders.

MTU takes a cross-media approach to its sustainability communication, using various channels and platforms to regularly communicate with stakeholders. The choice of format and frequency depends on the communication and information requirements or the respective platform. Stakeholder dialogue allows to include relevant interests and take feedback. It is also an opportunity for direct exchange with company representatives, particularly for local residents, those in the immediate vicinity and other stakeholder groups that could be affected by potential impacts of the company's business activities. MTU analyzes stakeholders to identify relevant stakeholder groups whose interests are directly or indirectly affected by its activities. This stakeholder engagement gives the Group a comprehensive understanding of key stakeholders' interests and perspectives concerning MTU's strategy and business model. Their views are reflected in the double materiality assessment (see the *chapter Description of the process to identify and assess material impacts, risks and opportunities (IRO-1)*). MTU recognizes the diverse interests of its key stakeholders and integrates these into its strategic framework.

The company has identified several stakeholder groups and utilizes various forms of engagement with each group. In general, MTU’s key stakeholders can be clustered into two groups: affected stakeholders and users of the sustainability statement. Affected stakeholders are individuals or groups whose interests are affected or could be affected – positively or negatively – by MTU’s activities and its direct and indirect business relationships across its value chain. Affected stakeholders include, for example, workers in the upstream value chain and nature as a silent stakeholder. Users of MTU’s sustainability statements are primary users of general financial reporting (existing and potential investors, lenders, capital markets, associations and organizations, policymakers and authorities, scientists and researchers as well as the media). In addition, a large number of affected stakeholders are also users of the sustainability statement, such as business partners and customers, analysts and rating agencies, trade unions and social partners, employees, suppliers and regional stakeholders. The following table contains an overview of MTU’s most important stakeholders, the type of stakeholder engagement, the stakeholder interests recorded and measures taken in response to their interests.

Overview of key stakeholder groups

Stakeholder groups	Type	Type of stakeholder engagement	Stakeholder interests	MTU's actions regarding stakeholder interests
Own workforce	Affected stakeholder group / Users of the sustainability statement	Employee surveys, internal media, information and dialogue events, employee interviews	A supportive and dynamic work environment, professional growth, training and development, job security, adequate remuneration and a positive, inclusive corporate culture	Promotion of diversity, flexibility and employee development programs, attractive remuneration systems, work-life balance options
Business partners and customers	Affected stakeholder group / Users of the sustainability statement	Surveys, trade fairs, media	Safe, high-quality, efficient and innovative engine solutions, success, cost efficiency and sustainability of products and services	Continuous adaptation of the products and services, focus on safe and advanced technologies and more sustainable processes
Suppliers	Affected stakeholder group / Users of the sustainability statement	Supplier portal, quality audits, surveys, joint events	Close cooperation with MTU, transparency, fair business practices and opportunities for long-term partnerships	Regular dialogue on mutual benefit to ensure a reliable supply chain
Workers in the upstream value chain	Affected stakeholder group	Use of findings from the International Aerospace Environmental Group (IAEG) Sustainability Assessment Program	Fair working conditions, protection of human rights, job security, development opportunities, codetermination	Performance of a risk analysis in relation to human rights due diligence in the upstream value chain and appropriate response (if necessary)
Capital market participants	Users of the sustainability statement	Annual General Meeting, conferences and roadshows, investor meetings, trade fairs, ratings	Financial performance, profitability and long-term growth of the company, innovation and competitiveness, continuous returns	Robust financial performance and sustainable growth as a result of strategy in line with investor expectations
Associations and organizations	Users of the sustainability statement	Memberships in initiatives and associations, participation in events and working groups, cooperation with NGOs	Appropriate representation of the interests of association and organization members, pursuit of the organization's purpose, promotion of industry standards and guidelines, dialogue on consultations	Dialogue and participation in industry initiatives – e.g., through membership of working groups – support in the development of industry guidelines, expressing opinions on regulations
Policymakers and public authorities	Users of the sustainability statement	Provision of information for policymakers in the form of events, political dialogue (e.g. during site visits)	Promotion of economic growth, job creation, compliance with environmental and safety standards	Dialogue with policymakers on the development of economic and environmental topics
Science and research	Users of the sustainability statement	Visits by university groups, talks and discussions at universities, work in MTU competence centers, joint research projects, trade fairs	Promotion and financial support of research and development, cooperation between science and industry	Cooperation with universities and research institutions, support for research projects, participation in specialist trade fairs and conferences, support of up-and-coming talent
The media	Users of the sustainability statement	Press releases, press meetings and conferences, answering press inquiries, internet, social media, trade fairs	Current and comprehensive information on the Group, transparency, reporting on business developments	Regular provision of press releases, interviews and background information, active presence in the media, answering of inquiries, press mailing list, press contacts (website)
Regional stakeholders	Affected stakeholder group / Users of the sustainability statement	Societal collaborations, social media, internet, stakeholder surveys, neighborhood dialogue, consultations on construction projects, information in accordance with the German Hazardous Incident Ordinance	Information needs regarding MTU's impact on the environment, regarding initiatives for social responsibility and regarding the promotion of the regional economy	Regular dialogue with regional interest groups, reporting on environmental and sustainability measures, promotion of local economic projects, regional dialogue opportunities, information in community media

Description of the interests and views of stakeholders related to S1 – Own workforce

MTU's own workforce are affected stakeholders, as they can be significantly influenced by MTU's activities and, pursuant to ESRS, include both employees (hereinafter also referred to as "MTU employees") and non-employees. The interests, opinions and rights of the workforce play an important role in MTU's business model and strategy. They are actively incorporated in operational planning through regular dialogue formats such as employee surveys and internal media information. As part of the annual double materiality assessment, MTU evaluates, with the involvement of stakeholders and their representatives, whether its corporate strategy and business model have material impacts on its workforce. With regard to employees, this means regularly analyzing how strategic decisions and the business model affect employees' working conditions and well-being. By taking this into account in strategic and operational planning, adjustments and actions can be included in order to address material impacts. MTU also pays explicit attention to respecting human rights within the organization and aligns its corporate practices accordingly.

MTU relies on a corporate culture that is open to change, strengthens employees' decision-making powers ("empowerment") and promotes entrepreneurial thinking and a digital mindset. Innovative strength and long-term success are based on a willingness to change and on cooperation characterized by trust and reliability.

In the coming years, MTU's strategic roadmap for employee development will focus on promoting entrepreneurial action at all levels, strengthening a global mindset and internationality, expanding digital skills and driving a value-based transformation.

Description of the interests and views of stakeholders related to S2 – Workers in the value chain

The majority of MTU's direct contractual partners for production materials and indirect materials are based in the EU or the US, where social matters are highly regulated by law. A small proportion of the goods are sourced from other regions of the world. Care is taken to ensure that any production materials purchased are of high quality and the products generally require a high degree of technical expertise for their manufacture. Consequently, the selection of suppliers is constrained. This results in purchasing processes and strategies being predominantly influenced by quality considerations, which are the primary focus of decisions. Due to these circumstances, respect for human rights and the interests of rights holders in the upstream value chain have less of an impact on the direction of the strategy or the business model but are a prerequisite for a business relationship, regardless of the purchasing region.

The processing steps in the higher tiers of the upstream value chain are known, but there is a lack of transparency with regard to the country and company in which they take place. The importance of transparency in the upstream value chain has already been acknowledged and will play a pivotal role in the strategic focus on the topic of sustainability, as it is a prerequisite for ensuring compliance with human rights and social standards throughout the entire upstream value chain.

Description of the interests and views of stakeholders regarding product quality and flight safety

Safety first – MTU emphasizes the importance of product quality and flight safety as key corporate goals that are anchored in its mission statement and linked to high customer satisfaction and the Group's competitiveness. To achieve these goals, MTU uses an integrated management system (IMS) to address the interests of the stakeholder groups affected by product quality and flight safety. These include customers, technology partners and suppliers as well as airline passengers, regulatory authorities and MTU employees.

With its quality vision for 2025, MTU is aiming to achieve flawless product quality and product safety in flight and a high level of customer satisfaction.

Material impacts, risks and opportunities and their interaction with strategy and business model (SBM-3)

MTU assesses the effect of the material impacts, risks and opportunities on the corporate strategy and business model in order to reduce negative impacts and risks, reinforce positive impacts and take advantage of opportunities. A complete overview of the material impacts, risks and opportunities and their position in the value chain can be found in the list of material impacts, risks and opportunities in the Notes. All material impacts, risks and opportunities and their current and expected effect on the business model, value chain, strategy and decision-making, and the way in which MTU responds to these influences or takes action to deal with certain material impacts or risks and opportunities, are explained in detail in the topic-specific chapters and summarized below:

Material environmental matters

There are material negative impacts due to GHG emissions, in relation to both MTU's own operations and the product use phase. The emissions, which mainly consist of CO_2, along with non-CO_2 effects from NOx and contrails, contribute to global warming. These impacts can be found throughout the value chain. One long-term risk is the possibility of failing to meet climate targets, which could affect the ESG rating and customer perception.

Adapting MTU's business model to the challenges of climate change is a key component of the corporate strategy, currently operationalized through the Claire agenda and the ecoRoadmap. MTU has created a comprehensive sustainability management system and invests in research and development to promote low-emission technologies and improve the sustainability of its products. A specific performance indicator ("CO_2" with the components "CO_2 abatement realized through sustainable measures" and "remaining CO_2 emissions") is incorporated into the targets for the Executive Board.

MTU makes a positive contribution to the circular economy through its MRO services. Their quality and efficiency ensure that only parts that cannot be repaired are replaced, which extends the service life of the engines and reduces the consumption of resources.

MTU uses its expertise in the MRO sector to optimize resource use and contribute to the circular economy. The use of intelligent repair methods and the reuse of components reduces resource consumption. The continuous development of innovative methods enables damage to be detected more efficiently and helps optimize maintenance costs, which also has a positive effect on MTU's strategy and business model.

Material social matters

Both potentially negative and actual positive and negative impacts exist, as well as a risk in relation to the company's own workforce. Inadequate measures to ensure occupational health and safety – including ineffective training measures – could lead to an increased likelihood of work-related accidents and potential negative impacts on occupational health and safety. Potential cases of discrimination and bullying could also have negative consequences for the workforce and the corporate culture. By contrast, there are positive effects from structures that promote the well-being and work flexibility for employees and from training programs that support personal development and career opportunities.

The positive impacts relate to the improvement of working conditions and the promotion of employee qualifications, which is directly linked to the corporate strategy. Potential negative impacts, such as health risks in production processes, are addressed through targeted action. To address the material long-term risk of restricted working conditions – for example due to insufficiently flexible working time models – MTU aims to create attractive working conditions in order to recruit and retain highly qualified talent. This will remain crucial to the company's success in the future. MTU offers continuous programs for secure employment, fair and adequate wages, equal opportunities and the possibility of professional development. Specific performance indicators ("training days per employee" and "women in leadership positions") are anchored in the Executive Board's targets.

Potentially negative impacts on the workforce have been identified in the upstream value chain. A lack of transparency regarding the higher upstream value chain means that potentially negative impacts, for example in the area of working conditions, cannot be ruled out. Even for direct suppliers, potentially negative impacts in the area of equal treatment and equal opportunities cannot be completely ruled out. The influence on the impacts is limited by the restricted selection of suppliers and a lack of transparency in the higher tiers of the upstream value chain. MTU formulates clear requirements for its suppliers with regard to human rights and social standards and works to continuously improve data quality and availability.

MTU-specific aspect of product quality and flight safety

With regard to its own activities and the downstream value chain, ensuring product quality and flight safety is of crucial importance to MTU. The integrated management system (IMS) is essential in avoiding potentially negative impacts. Ensuring product quality and flight safety is of crucial importance in the aviation industry. To minimize potential impacts on flight safety, defect-free product quality as a key corporate goal – derived from MTU's "Zero Defects" vision – is an integral part of MTU's strategy and business model.

Material matters relating to business conduct

MTU adheres to strict anti-corruption measures in accordance with European standards, which have a potential positive impact on societal stability and trust in local markets and promote fair competition. Further development of the compliance culture is an integral part of MTU's corporate strategy and business model and is anchored as a goal in MTU's 2025+ sustainability program.

In its double materiality assessment, MTU identified two material risks for the long-term time horizon. Firstly, there is a risk of customers switching to competitors if MTU does not achieve its climate targets and receives lower ESG scores. This could have a negative effect on financial performance, particularly on EBIT and cash flow. Secondly, negative developments with an impact on working conditions could reduce employer attractiveness, lead to higher staff turnover and result in a shortage of skilled workers in the long term.

MTU considers the material risks identified to be manageable and does not anticipate any current financial effects on its net assets, financial situation or results of operations.

MTU's strategic planning includes examining the sensitivity of future strategic decisions and the resilience of its strategy and business model-related capacities in order to manage the material impacts and risks.

As part of the double materiality assessment, MTU has considered ESG scenarios derived from selected risks and opportunities, in order to check whether there are any overlaps with the overarching strategy. These scenarios help to identify potential overlaps with MTU's corporate strategy and are combined with disruptive factors such as artificial intelligence and ESG initiatives from the peer group.

In line with ESRS and MTU's long-term time horizon, the "Green Pressure Regulation" ESG scenario has a time frame of around 15 years. This scenario looks at the impacts stricter emissions regulations and flight bans could have on air traffic. Based on the assumptions generally applicable to MTU, a rough estimate is made of the impacts on key figures such as a reduction in the number of shop visits, revenue and gross profit over the next 15 years. As the calculations of the financial effect are based on assumptions, it is important to compare scenarios in terms of the extent of the financial effect and not in terms of exact figures. New scenarios are developed every two years in response to economic, political, social, environmental and legal changes in aviation.

MTU continuously adapts its strategies and business model to address material impacts, risks, and opportunities. The Group invests in sustainable technologies, enhancing circular economy practices, improving workforce conditions, and strengthening the compliance framework. The aims are to strengthen MTU's resilience and competitiveness and make a positive contribution to society and the environment while ensuring long-term success.

With the exception of the sustainability matter of product quality and flight safety, all material impacts, risks and opportunities are covered by the ESRS disclosure requirements. The topic of product quality and flight safety is included as an entity-specific disclosure in this sustainability statement.

IRO Management

Description of the process to identify and assess material impacts, risks and opportunities (IRO-1)

MTU has established a structured process for the double materiality assessment with clear roles and responsibilities, supported by internal controls. Responsibility for the process lies with the Corporate Sustainability Management and Reporting department. The process begins with the identification and analysis of relevant sustainability topics that take into account both internal and external stakeholder perspectives. A comprehensive assessment framework that combines qualitative and quantitative analysis methods is then applied. An interdisciplinary and cross-location team of experts from various units supports the process steps. The double materiality assessment is reviewed on an annual basis and adapted to current developments.

MTU's double materiality assessment for identifying and evaluating impacts, risks and opportunities (IRO) in relation to the entire spectrum of ESRS sustainability matters (in accordance with ESRS 1 AR 16) as well as sector- and company-related topics consists of four phases.

In the first phase, the aim is to create a comprehensive understanding of MTU's business relationships, value chain, and relevant stakeholders. This includes mapping MTU's activities along the value chain and identifying impacts, risks and opportunities connected to its own operations, upstream and downstream value chain, products, services and business relationships (suppliers, customers and partners) and relevant geographical areas. Factors that could give rise to an increased risk of negative impacts are also to be identified.

In the second phase, the impacts, risks and opportunities relating to environmental, social and governance issues are identified and documented depending on the business model, strategy and value chain. The process covers all of the topics set out in ESRS 1 AR 16 as well as additional sector- and company-specific matters. MTU has used sector information from the Sustainability Accounting Standards Board (SASB) to identify material impacts, risks and opportunities. Topics with identified potential and actual impacts, risks and opportunities are evaluated further. This process is supported by the inclusion of perspectives from affected stakeholder groups (such as employees, workers in the value chain, customers and nature as a silent stakeholder), and by an interdisciplinary team of experts from various areas of the company (production, development & technology, corporate quality & environmental sustainability, purchasing & logistics, human resources, occupational safety, compliance, sales, data privacy and information security, and risk management), publicly available information and industry-specific analyses.

Once the impacts, risks and opportunities have been identified, they are assessed in a third phase using a standardized method and taking into account the ESRS requirements and the guidelines by EFRAG. The assessment of impacts includes an assessment of their severity, based on their scale, scope and irremediable character (in the case of negative impacts), and of their likelihood of occurrence in the case of potential impacts. For the materiality assessment, MTU used its predefined entity-specific time horizons, which differ from the time horizons defined in ESRS 1 Section 6.4 paragraph 77 (see *Time horizons (BP-2)*). Positive and negative impacts are analyzed separately; negative impacts cannot be offset against positive impacts. In the event of potential impacts on human rights, the severity pursuant to ESRS 1 Section 3.4 paragraph 45 takes precedence over the likelihood of occurrence.

MTU applies a zero-tolerance principle derived from the management approach as part of its double materiality assessment. It applies to potential negative impacts in the following areas:

/ Prevention of corruption

/ Breaches of human rights in own workforce

/ Violations of export control regulations (trade compliance)

/ Product quality and flight safety

If a potential negative impact is identified for one of the aforementioned topics, this is automatically considered material due to the zero-tolerance principle.

As part of the first-time implementation of the process for determining the material sustainability matters, MTU measured the financial materiality of the risks and opportunities identified on the basis of their effects on EBIT and cash flow, which can be correlated with MTU's net assets, financial position and results of operations and indirectly with its access to capital or its cost of capital. The materiality of the risks and opportunities identified was assessed on the basis of the above-mentioned financial effects and the likelihood of occurrence. Risks and opportunities are considered to be material based on a combination of likelihood and financial effect (deviation of EBIT or cash flow in euros compared to budget). The risks and opportunities identified are integrated into the existing risk management system and evaluated on a quarterly basis by the responsible specialist departments. Sustainability risks are also evaluated in the risk management system with regard to their expected financial effects and likelihood of occurrence, without being prioritized differently from other risks. Throughout the entire double materiality assessment process, impacts, risks and opportunities are not initially prioritized based on their relative evaluation compared to other impacts, risks and opportunities. Subsequently, however, any material impacts and risks identified are prioritized within the topic-specific departments for the purpose of determining the appropriate action to be taken. All impacts and dependencies on natural, human and social resources that are identified are reviewed for risks and opportunities for MTU by those responsible for each topic with the support of risk management.

In the fourth phase, the materiality threshold is set, and the results of the materiality assessment phases mentioned above are documented in a standardized template that is updated annually. The template contains a description of the individual impacts, risks and opportunities, the stage of the value chain affected, the time horizon, the individual assessment and the persons responsible for the assessment process.

The reporting boundaries within which MTU operates in the process for determining and assessing material impacts, risks and opportunities encompass MTU's own business operations as well as its upstream and downstream value chain, as described in the *General basis (BP-1)* section.

Description of the double materiality assessment process regarding E1 – Climate change

MTU has established a process to identify and assess climate-related impacts, risks, and opportunities. To this end, assets and activities in MTU's own operations and within the value chain are screened with regard to the impacts of climate change and the risks and opportunities.

To determine MTU's impacts on climate change, the following emission sources and underlying energy consumption were assessed: company facilities and vehicles (Scope 1), purchased electricity and heat for own use (Scope 2) and purchased goods and services, capital goods, fuel- and energy-related activities, upstream transportation and distribution, waste generated in operations, business travel, employee commuting, leased assets, downstream transportation, processing of sold products, use of sold products, end-of-life treatment of sold products, and leased assets and investments (Scope 3). As part of the process, the sources of the main GHG emissions and the drivers of other climate-related impacts, such as non-CO_2 effects triggered by the emission of nitrogen oxides and the formation of contrails, were identified in MTU's activities and value chain. Actual and potential impacts on climate change were assessed by calculating GHG emissions. For more information on GHG emissions, see *Gross Scopes 1, 2, 3 and Total GHG emissions (E1-6)*.

In order to assess the climate-related hazards for MTU's assets and activities, a physical climate risk analysis was carried out for the six largest production and maintenance sites with the aid of an external service provider. The analysis was based on climate projections from climate models derived from the Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). Projections of relevant climate parameters such as temperature, wind speed and precipitation were used to identify climate risks. The analysis takes account of all 28 chronic and acute climate hazards specified by ESRS E1. Representative Concentration Pathway (RCP) 8.5, the IPCC emissions scenario with high GHG emissions in the 21st century, was chosen for the analysis of physical climate risks, as in this scenario GHG emissions reach the highest levels and physical risks are therefore at their most pronounced.

The RCP8.5 narrative concentrates on the continued use of fossil fuels, relying on competitive markets, innovation and technological progress to achieve sustainable development. GHG emissions are the highest of all RCPs in RCP8.5. According to IPCC estimates, they would result in global warming of 3.1 to 4.7 °C by the end of the century and are associated with the most far-reaching climate risks. MTU has chosen this "worst-case scenario" in order to gain an understanding of the necessary adaptation measures, which will also remain effective even under conditions with lower emission intensity. The scenario covers the period from 2015 to 2100 and so extends beyond MTU's strategic planning horizons.

The climate risk analysis for physical risks was considered for both the current and the future climate. The 20-year period from 2011 to 2030 was defined for the current climate. Accordingly, the current climate serves as a short-term time horizon. The future climate was defined as a 20-year period from 2031 to 2050, corresponding to a long-term time horizon. The choice of time horizons combines the need to examine physical risks over longer time periods to capture the impacts of climate change with the practice of using shorter, foreseeable time periods for strategic planning and capital allocation plans. This takes appropriate account of the useful life of MTU's assets.

The geospatial coordinates of the site locations have been used to obtain site-specific climate projections to assess the risk from chronic and acute climate hazards to MTU's assets and activities.

For the future climate, defined as the 20-year period from 2031 to 2050, the assessment of the climate-related risk is based on the likelihood that the severity of a climate factor in the future will exceed the mean severity in the current climate at the same location. Four different emission scenarios were used to assess the future climate: RCP2.6, RCP4.5, RCP6.0, and RCP8.5. The values of the climate variables were then categorized into five risk classes. In cases where no information on future developments was available, an assessment of the current climate risk was carried out where possible. The most significant limitation for scenario analysis is that the current generation of climate models cannot simulate all 28 hazards. The analysis for some hazards is therefore based on historical data instead of climate projections.

A qualitative, physical risk analysis based on the expected climate impacts in the RCP8.5 scenario was carried out for the MTU Maintenance Lease Services B.V. site in Amsterdam, which was not part of the analysis described above. The impact on the site and on the activities carried out there was assessed for each of the chronic and acute climate hazards. The information used is based on the latest IPCC Assessment Report. Specific supplier sites were not taken into account.

A climate scenario analysis was performed to take account of climate-related transition events in MTU's assets and activities and the downstream value chain. In the analysis, the climate-related transition events were assessed using the classification of the Task Force on Climate-related Financial Disclosures (TCFD) covering the areas of policy and law, technology, market and reputation, as well as their impacts on MTU's business activities. The short and medium-term period was defined as running until 2038 in view of relevant political goals, such as the European Union's net zero strategy for 2050 and the fact that most climate risks materialize over decades.

Since 2023, MTU has developed several transition scenarios to model future developments in the aviation sector. These scenarios incorporate sector-specific data and comprehensive macroeconomic variables and price metrics in order to derive risks and opportunities for MTU based on political and market-based developments up to 2038. These scenarios have been used to analyze the transition events and assess them with regard to the occurrence of gross transition risks or opportunities for MTU's assets and activities. One of the scenarios developed and analyzed is based on the political developments of the European Green Deal, which aims to achieve climate neutrality by 2050 and limit global warming to 1.5°C. The magnitude of the transition events was determined on the basis of sector-specific data and comprehensive macroeconomic variables and price metrics. The likelihood and duration were assessed for individual transition events based on expert judgments. The selection of scenarios covers the plausible risks and uncertainties related to the scenario definition.

As part of the analysis, MTU's assets and activities were screened to determine whether they are compatible with the transition to a climate-neutral economy or require significant efforts. Relevant locked-in GHG emissions result primarily from the product use phase. Due to the long product cycles in aviation these emissions can only be reduced over the long term. To achieve this, MTU has set out ideas for aircraft engines and their potential for reducing climate impact and energy consumption in the Claire technology agenda.

The development of the scenarios was coordinated with scientific and sector-specific developments to ensure their relevance and accuracy in presenting potential climate-related outcomes. The selection of scenarios covers the plausible risks and uncertainties related to the scenario definition. The MTU analysis includes expected transition risks by taking into account political developments aimed at achieving climate neutrality by 2050 and limiting global warming to 1.5 °C. The key drivers of the scenarios in relation to the impacts on MTU are the increasing price of GHG emissions and fuels, the gradual introduction of minimum requirements for SAF, partial flight and flight route restrictions, and increasing stakeholder requirements regarding ESG and climate targets. The expected scenario developments are based on information on the implementation of the EU Green Deal and the EU Fit for 55 package. Uncertainties arise from the assumptions made about transition events that go beyond the currently foreseeable political agenda and can currently only be modeled based on assumptions. For more information on the results of the analysis described above, see *Material impacts, risks and opportunities and their interaction with strategy and business model (SBM-3)*.

No scenario-based analysis of transition and physical risks was carried out for the assessment of the upstream value chain. Transition and physical risks related to the upstream value chain were instead considered at a general level, although limited transparency is a challenge.

Description of the double materiality assessment process regarding E2 – Pollution

MTU has implemented a screening process to identify the actual and potential pollution-related impacts, risks and opportunities within its own operations, and upstream and downstream value chain. MTU's assessment approach for conducting the environmental assessment for its own operations and the downstream value chain corresponds to the LEAP (locate, evaluate, assess and prepare) approach of the Task Force on Nature-related Financial Disclosures (TNFD).

To identify impacts, risks and opportunities related to pollution, MTU first assessed the activities of its business operations and value chain to determine the activities and sites where air, soil and water are polluted, substances of concern and substances of very high concern are used, or other forms of pollution occur. In the next step, the identified sites' pollution-related dependencies and impacts were analyzed and evaluated. This involved using information from the environmental management system and involving internal environmental specialists in the assessment. In the final step, MTU determined whether any additional risks and opportunities could be derived from the impacts identified.

Information from secondary literature and consultations with MTU's internal production experts were used to identify and assess impacts, risks and opportunities in the upstream value chain with regard to pollution. MTU did not hold any consultations with affected communities as part of the materiality assessment.

Description of the double materiality assessment process regarding E3 – Water and marine resources

To identify the impacts, risks and opportunities related to water and marine resources in its own business and the downstream value chain, MTU conducted a comprehensive analysis based on data from its business operations with the support of data from the World Resources Institute's (WRI) Aqueduct Water Risk Atlas and analyzed the downstream value chain for water and marine resource-related impacts. For conducting the analysis, the MTU process was aligned with TFND's LEAP approach.

Using information from the WRI Aqueduct Water Risk Atlas and MTU's water consumption data, activities and sites that could have impacts on water and marine resources were identified. River basins were considered as the relevant level for the assessment of sites in MTU's business operations. In the next step, the dependencies and impacts of the identified locations on water were analyzed and evaluated. For this, MTU utilized information from the environmental management system and consulted internal environmental specialists. In the final step, MTU determined whether any additional risks and opportunities could be derived from the impacts identified. Secondary data and consultations with MTU experts on the use of water and marine resources in production processes were used to identify and assess impacts, risks and opportunities in the upstream value chain. An analysis of supplier locations was not carried out in this context.

The analysis was based on the criteria for determining water status in accordance with the relevant annexes of Directive 2000/60/EC (Water Framework Directive) and the guidelines for implementing the Water Framework Directive. MTU did not hold any consultations with affected communities as part of the materiality assessment.

Description of the double materiality assessment process regarding E4 – Biodiversity and ecosystems

In order to identify material impacts, risks, dependencies and opportunities in connection with biodiversity and ecosystems, MTU carried out a process based on the first three phases of the TNFD's LEAP approach. In the first step, the actual and potential impacts and the dependencies on the biodiversity and ecosystems were identified. The local conditions at the operating sites, the business activities and the downstream value chain were taken into account. The impacts identified were evaluated by MTU's internal stakeholders. The following factors influencing the loss of biodiversity were taken into account:

- climate change;
- change of land-use;
- change of fresh water-use and change of sea-use;
- direct exploitation;
- invasive alien species;
- pollution;
- other impacts on the state of species;
- impacts on the extent and condition of ecosystems including through land degradation, desertification and soil sealing; and
- impacts and dependencies on ecosystem services.

Based on the evaluated impacts, physical, transition and systemic risks and opportunities for MTU were also identified and analyzed in the process.

As there is no comprehensive transparency of the production sites in the upstream value chain, MTU identified and assessed the impacts, risks and opportunities based on the processes in the upstream value chain. MTU drew on secondary literature and consultations with internal production process experts for this analysis.

The results did not give rise to any material impacts, risks, dependencies or opportunities related to biodiversity or ecosystems.

MTU has identified three sites near biodiversity-sensitive areas (i.e., within a radius of two kilometers) where MTU's activities could have potential impacts on the habitats of endangered species. The identification of the sites and their specific impacts was carried out in a two-stage process. First, the sites were evaluated using the WWF Risk Filter tool. The WWF "Environmental Factors" Risk Filter indicator was used to determine the sites. This indicator brings together various biodiversity-related aspects into biodiversity-sensitive areas. The biodiversity-sensitive areas include key biodiversity areas (KBAs) and protected areas listed in the World Database of Protected Areas (WDPA). The World Database of Protected Areas is the most comprehensive global database of marine and terrestrial protected areas. The MTU sites that are labeled "high risk" were defined as "relevant biodiversity sites." The three sites identified were then analyzed for their biodiversity-related impacts, taking into account site-specific activities. The analysis came to the conclusion that MTU has no material impacts on endangered species in ecosystems with sensitive biodiversity. According to the directives and frameworks or equivalent national law or international standards, such as 2009/147/EC, 92/43/EEC, 2011/92/EU and Performance Standard 6 of the International Finance Corporation (IFC), no specific mitigation measures are required. Furthermore, no MTU-specific impacts were identified with regard to land degradation, desertification or soil sealing. MTU's business model has no known impact on endangered species. MTU did not hold any separate consultations with affected communities as part of the process.

Description of the double materiality assessment process regarding E5 – Resource use and circular economy

The identification of impacts, risks, and opportunities related to resource use and circular economy is based on a comprehensive assessment of all MTU OEM and MRO sites on the basis of TFND's LEAP approach. The activities in MTU's own operations and in the upstream and downstream value chain were screened to identify assets and activities that have an impact on resource inflows and resource outflows, including MTU's products, services and waste. In the value chain, the main material flows were analyzed to determine which dependencies exist for and between OEM and MRO. Based on the impacts and dependencies identified, risks and opportunities were derived and assessed on the basis of data from the environmental management system, market screening, scientific publications and EU regulations and of discussions with environmental management experts. In particular, quantity estimates and expert surveys were used to identify material actual and potential impacts, risks and opportunities in MTU's operations and in the upstream and downstream value chain. The screening process was conducted using the following methods, assumptions, and tools: LEAP approach, Corporate Carbon Footprint (Scope 3) and Material Flow Analysis (MFA).

As a result, the positive impacts of MTU's MRO activities on resource use and circular economy were assessed to be material. This applies both to product design, which takes into account circular economy criteria such as repairability (MTU OEM sites), and to the maintenance activities themselves (MTU MRO sites). The following products manufactured by MTU have been identified as material: high-pressure compressors, low-pressure turbines, turbine center frames for the commercial and military aviation sector and for industrial gas turbines for which nickel and titanium alloys are predominantly used in the upstream value chain. The MRO activities result in an increased service life of the products, thereby helping to save resources. MTU did not hold any consultations as part of the materiality assessment.

Description of the double materiality assessment process regarding G1 – Business conduct

To identify impacts, risks and opportunities regarding MTU's business conduct, the double materiality assessment used the results of the ongoing and systematic analysis of business relationships and transactions, which is an integral part of the Group-wide risk management and compliance management system. This also includes an analysis of the contextual surroundings for each site. Additionally, MTU screens its business relationships, business partners, customers, and suppliers by evaluating the types and durations of contracts and considering country-specific corruption and bribery risks – for example, in sales and marketing activities.

The foundation for MTU's country risk monitoring and analysis is the latest Corruption Perception Index (CPI) from Transparency International.

Disclosure requirements in ESRS covered by the undertaking's sustainability statements (IRO-2)

The list of disclosure requirements that were taken into account when preparing the sustainability statement on the basis of the results of the materiality assessment, including the page numbers containing the corresponding disclosures in the sustainability statement, can be found in the annex.

Based on the materiality assessment, MTU concluded that the topics in the following table are not material for the company.

List of non-material ESRS topics

ESRS	Topic
ESRS E2	Pollution
ESRS E3	Water and marine resources
ESRS E4	Biodiversity and ecosystems
ESRS S3	Affected communities
ESRS S4	Consumers and end-users

Based on the results of the double materiality assessment (see *Description of the process to identify and assess material impacts, risks and opportunities (IRO-1)* for a detailed description of the process, including the definition of thresholds), the material impacts, risks and opportunities are assigned to the respective ESRS sustainability aspects as per ESRS 1 AR 16. A sustainability matter is material by either a material impact or material risk and opportunity, or both. Material information for material sustainability matters is determined following EFRAG and IDW Guidance (incl. EFRAG list of datapoints and EFRAG ESRS Q&A) on mapping sustainability matters covered in topical ESRS to ESRS disclosure requirements.

Following the criteria on material matters and materiality of information as provided by ESRS 1, no metric is omitted within this sustainability statement due to materiality of information considerations.

Environmental information

Disclosures pursuant to Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation)

Background

A key objective of the EU Action Plan for Financing Sustainable Growth is to reorient capital flows towards sustainable investment. In light of this, Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (subsequently referred to as the EU Taxonomy Regulation) came into effect in mid-2020. This Regulation contains a uniform and legally binding classification system defining which economic activities are deemed to be "environmentally sustainable" in the EU. The results of this classification have to be reported annually on a company-specific basis.

Article 9 of the Taxonomy Regulation sets out the following six environmental objectives:

1. Climate change mitigation (CCM);

2. Climate change adaption (CCA);

3. Sustainable use and protection of water and marine resources (WTR);

4. Transition to a circular economy (CE);

5. Pollution prevention and control (PPC);

6. Protection and restoration of biodiversity and ecosystems (BIO).

Reporting under the Taxonomy Regulation is carried out in accordance with the following Delegated Regulations and the associated amendments and additions:

Delegated regulation (EU) 2021/2139 ("Climate Delegated Act")

Delegated regulation (EU) 2021/2178 ("Disclosures Delegated Act")

Delegated regulation (EU) 2023/2486 ("Environmental Delegated Act")

Since the 2023 fiscal year, disclosures need to be made on all six environmental objectives, whereas only disclosures on taxonomy eligibility was required last year for environmental objectives 3–6 and for the new economic activities included as part of the amendments and additions to the Climate Delegated Act (EU 2021/2139). Disclosures on taxonomy alignment for all six environmental objectives need to be provided for the first time for the 2024 fiscal year.

The amendments published in 2023 (Delegated Regulation (EU) 2023/2485) also include the inclusion of technical screening criteria for new economic activities. As a result, the aviation-related economic activities 3.21 Manufacturing of aircraft and 6.18 Leasing of aircraft have been significant for MTU since the 2023 fiscal year and were assessed for taxonomy alignment for the first time in the 2024 fiscal year.

With regard to the classification of an economic activity as "environmentally sustainable" within the meaning of the EU Taxonomy, a distinction has to be drawn between those activities that are taxonomy-eligible and those that are taxonomy-aligned. Only those economic activities that can be assigned to the descriptions of the activities in the delegated acts, irrespective of whether the technical screening criteria are met, are deemed to be taxonomy-eligible.

If an economic activity is classified as taxonomy-eligible, the next step is to evaluate whether it makes a substantial contribution to one or more of the environmental objectives and does no significant harm to another environmental objective and is undertaken in compliance with minimum safeguards in accordance with OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights, the ILO core labor standards and the International Bill of Human Rights. In line with the minimum safeguards, MTU takes into account issues of human rights, corruption and bribery, fair competition, taxation, and science, technology and innovation. Compliance with minimum social safeguards is ensured, among other things, by the Code of Conduct, the Declaration of Principles for the Protection of Human Rights and the Code of Conduct for Suppliers, as well as by MTU's risk management system to ensure compliance with human rights due diligence obligations.

The taxonomy-aligned economic activities met these criteria in the reporting period. In addition, attention is paid to the rules on avoiding principal adverse impacts pursuant to Article 18 (2) of the EU Taxonomy Regulation. If all of these criteria are met, the economic activity can be classified as taxonomy-aligned. To assess whether the criteria are met, each economic activity is checked to see whether it meets the criteria set out in Article 3 of Regulation (EU) 2020/852 and the associated technical screening criteria.

Application of the EU Taxonomy Regulation

The amounts used to calculate the turnover KPIs, capital expenditures (CapEx) and operating expenditures (OpEx) are based on the corresponding figures reported in the consolidated financial statements. In accordance with Section 315e (1) HGB, the consolidated financial statements of MTU as of December 31, 2024, have been drawn up using the IFRSs. All consolidated companies in the MTU Group are included in the calculation.

The disclosure of taxonomy-eligible and taxonomy-aligned turnover / capital expenditures (CapEx) / operating expenditures (OpEx) as a proportion of the respective total amounts for the MTU Group for fiscal year 2024 is based on a full analysis of the Group's business activities. If taxonomy-aligned CapEx and OpEx (which correspond to economic activities 3.21 Manufacturing of aircraft and 6.18 Leasing of aircraft) cannot be allocated to just one engine, allocation keys are used. The data basis for the allocation keys used is the respective proportion attributable to taxonomy-aligned revenue.

Turnover

The turnover KPIs comprise turnover from taxonomy-eligible or taxonomy-aligned economic activities as a proportion of total turnover in the relevant fiscal year. The basis for calculating the turnover KPIs is the net turnover from contracts with customers (IFRS 15) and from leasing transactions (IFRS 16), technology funding grants (IAS 20) and other support services, and currency result that impacts turnover.

The denominator used to calculate the turnover KPIs is the total turnover of the respective fiscal year and can be found in the *Consolidated income statement*. This is examined across all Group subsidiaries to identify whether it was generated by taxonomy-eligible or taxonomy-aligned economic activities as defined in the annexes to Delegated Regulation 2021/2139 and Delegated Regulation 2023/2486 to the Taxonomy Regulation.

The numerator of the taxonomy-aligned turnover to be taken into account in accordance with the Taxonomy is composed as follows:

Quantitative breakdown of the taxonomy-aligned turnover numerator

in € million	Contracts with customers	Leasing transactions	Technology funding grants	Other turnover	Total
Total	1,151				1,151

For more detailed information on the turnover KPIs, please see the corresponding table at the end of this section.

CapEx KPI

The CapEx KPIs indicate the proportion of capital expenditures that relates either to assets or processes associated with a taxonomy-eligible and taxonomy-aligned economic activity, that is part of a CapEx plan to expand a sustainable economic activity or that relates to the purchase of products or services from a taxonomy-eligible and taxonomy-aligned economic activity.

The basis for calculating capital expenditures comprises additions to property, plant and equipment and intangible assets in the fiscal year under review, before depreciation and amortization and before any remeasurements. Capitalized program assets and program-independent technologies are reported under intangible assets. Capital expenditures also include additions to property, plant and equipment and intangible assets resulting from business combinations (application of IFRS [IAS 16, 38, 40, IFRS 16]; and national accounting policies). Acquired goodwill is not taken into account. The capital expenditures for the respective fiscal year can be found in the changes in intangible assets, goodwill, and property, plant and equipment *Changes in non-financial assets – purchase and production costs 2024*.

CapEx plan

At MTU, taxonomy-aligned capital expenditures aimed at leading to a reduction in GHG emissions and an expansion of taxonomy-aligned economic activities is currently attributable to research and development activities on new engine technologies in accordance with capital expenditure plans. The capital expenditure plans comprise capital expenditures and non-capitalizable operating expenditures that aim to expand taxonomy-aligned economic activities.

MTU's current understanding of the EU Taxonomy is that capital expenditure plans can be disclosed if the research and development plans are comprised almost entirely of operating expenditures (OpEx), which are disclosed under the OpEx KPI.

Different methods are used for product-related development of established engine technologies and research work for new engine technologies. Development expenses are determined according to the turnover activity for which development work is performed (3.21 Manufacturing of aircraft), using an allocation by engine type. Research and development expenses are allocated to economic activity 9.1 Close to market research, development and innovation and serve to extend taxonomy-eligible and taxonomy-aligned economic activities.

Overall, these are various research projects that MTU expects to further expand taxonomy alignment within the next five to nine years in accordance with economic activity 9.1 Close to market research, development and innovation. The time from the start of engine development to certification is approximately 6.5 years. The planning horizon for the relevant research projects corresponds to the customary development cycle for aviation technology.

The numerator of the taxonomy-aligned capital expenditures to be taken into account in accordance with the Taxonomy is composed as follows:

Quantitative breakdown of the taxonomy-aligned CapEx numerator by economic activity

Activity in € million	Property, plant and equipment	Intangible assets	Right-of-use assets	Total	of which acquired through business combinations	of which part of a CapEx plan
3.21	38	36		**74**		
4.22	17			**17**		
7.7	37			**37**		
9.1	9			**9**		9
Total	**101**	**36**		**137**		

For more detailed information on the CapEx KPIs, please see the corresponding table at the end of this section.

OpEx KPI

The OpEx KPIs indicate the proportion of operating expenditures that relate either to assets or processes associated with a taxonomy-eligible and taxonomy-aligned economic activity, that is part of a CapEx plan to expand a sustainable economic activity or that relates to the purchase of products or services from such activity.

The basis for calculating operating expenditures comprises direct, non-capitalized research and development expenses, renovation of buildings, short-term leases, maintenance, and all other direct expenditures relating to day-to-day servicing of property, plant and equipment by the company or third parties that are necessary to ensure the continued and effective use of such assets.

The denominator is derived from the sum of the costs listed above by means of a detailed analysis of relevant accounts and cost centers.

The numerator of the OpEx ratio corresponds to the part of the operating expenditures included in the denominator that relates to assets or processes associated with taxonomy-eligible or taxonomy-aligned economic activities as per the underlying annex to the Taxonomy Regulation.

The taxonomy-aligned numerator for calculating the OpEx KPI is determined as follows:

Quantitative breakdown of the taxonomy-aligned OpEx numerator

in € million	Maintenance	Short-term leases	Building renovation measures	Research and development	Other direct expenditures	Total
Total	**11**			**52**		**63**

For more detailed information on the OpEx KPIs, please see the corresponding table at the end of this section.

In the calculation of the above KPIs, double counting of economic activities was avoided by applying various controls, including the documentation of data generation and ensuring that the data could be reconciled with other financial information.

EU Taxonomy KPIs for fiscal year 2024

The disclosure of taxonomy-eligible and taxonomy-aligned turnover / capital expenditures (CapEx) and operating expenditures (OpEx) as a proportion of the respective total amounts for the MTU Group for fiscal year 2024 is based on a full analysis of the Group's business activities.

The table below shows the results of the KPI calculation:

EU Taxonomy KPIs

in percent	Taxonomy-aligned	Taxonomy-eligible, but not aligned	Taxonomy non-eligible
Turnover	16	79	5
CapEx	17	67	16
OpEx	22	61	17

MTU's relevant economic activities pursuant to the Taxonomy Regulation

The economic activities of MTU to be reported are mainly aimed at environmental objective 1 (climate change mitigation). The following relevant taxonomy-eligible and taxonomy-aligned economic activities were identified for fiscal year 2024:

3.21 Manufacturing of aircraft

MTU's core business is the development, manufacture, sale and maintenance of commercial and military aircraft engines, which can therefore be classified as a material turnover-generating economic activity in the area of manufacturing of aircraft under the environmental objective of climate change mitigation. As a consequence, the activities of MTU resulting from the manufacture, repair, maintenance, retrofitting, design and conversion of aircraft engines are classified as taxonomy-eligible.

Specifically, this classification corresponds to the activities in connection with MTU's original equipment manufacturing (OEM) and maintenance, repair and overhaul (MRO) engine business.

In fiscal year 2024, a review of taxonomy-alignment was carried out for the first time in relation to the technical screening criteria of economic activity 3.21 for commercial aircraft engines. This included checking whether the MTU aircraft engines taken as a basis for the activities in 3.21 are used in aircraft that are below the CO_2 metric value specified in the ICAO standard. In the case of military engines and for the majority of engines in the commercial sector, the external evidence required to verify the substantial contribution is not available, meaning that only taxonomy-eligibility can be reported here. The alignment assessment was successfully completed for a small number of engines in the commercial sector.

Besides the substantial contribution and the minimum safeguards standards, the "do no significant harm" (DNSH) requirements for the corresponding engines were also met in order to achieve alignment. This was achieved by carrying out a climate risk analysis for the sites concerned and through the existence of processes for the reuse of secondary raw materials and the traceability of the materials used. In addition, the activity complies with the requirements for sustainable use and protection of water and marine resources according to Appendix B, pollution prevention and control, including Appendix C, and ensures the protection and restoration of biodiversity and ecosystems.

For fiscal year 2024, the taxonomy-eligible turnover generated in relation to criterion 3.21 amounted to 92% (€6,831 million) of the Group's total turnover and the taxonomy-aligned turnover amounted to 16% (€1,151 million).

The CapEx for this economic activity includes expenditures on technical equipment and machinery, tools and tooling, and capitalized development costs. At €425 million, taxonomy-eligible CapEx for the fiscal year accounts for 54% and taxonomy-aligned CapEx for 9% of MTU's total capital expenditures.

In connection with this economic activity, OpEx includes direct expenditures on the maintenance of technical equipment and machines as well as non-capitalizable expenditures on the further development of existing engine programs. At €181 million, 63% of MTU's total OpEx was classified as taxonomy-eligible and 8% (€23 million) as taxonomy-aligned in relation to this economic activity.

4.22 Production of heat/cool from geothermal energy

The construction of MTU's geothermal energy plant at the Munich site is included in the area of heat/cool generation from geothermal energy. To date, only taxonomy-eligible CapEx has been associated with this activity. As confirmed by a life cycle emissions analysis commissioned by MTU, the life cycle GHG emissions from the generation of heat from the geothermal plant are below 100 g CO_2e/kWh and therefore meet the requirements for a significant contribution to climate change mitigation.

For compliance with the DNSH criteria, the requirements of Appendix B on the sustainable use and protection of water and marine resources and Appendix D on the protection and restoration of biodiversity and ecosystems in accordance with national legislation were met and a climate risk analysis was carried out for the Munich site.

By fulfilling the significant contribution, the DNSH criteria and complying with the minimum safeguards, compliance in the amount of €17 million CapEx can be reported for economic activity 4.22 in fiscal year 2024 (2% of MTU's total capital expenditures).

6.18 Leasing of aircraft

This economic activity includes the rental and leasing of aircraft and aircraft parts and equipment to the extent that they can be linked to an eligible aircraft type and improves or maintains the level of efficiency of the aircraft. MTU is active in short- and medium-term engine leasing through its subsidiary MTU Maintenance Lease Services.

This is associated with taxonomy-eligible turnover (2% or €176 million), CapEx (15% or €116 million) and OpEx (3% or €8 million) for fiscal year 2024.

Despite corresponding efforts to obtain the necessary evidence for a review of taxonomy alignment, the technical screening criteria for this economic activity could not be fully met for fiscal year 2024.

7.2 Renovation of existing buildings

No reportable turnover is generated from the implementation of building maintenance measures.

The CapEx recorded as taxonomy-eligible for this economic activity amounted to €8 million in the fiscal year (1% of total CapEx). The OpEx for the taxonomy-eligible building maintenance measures recorded in the reporting year amounted to €4 million (or 1% of total OpEx). This includes measures such as the renovation of existing production facilities or of roofs.

The technical screening criteria required for taxonomy alignment were not fully met in fiscal year 2024.

7.3 Installation, maintenance and repair of energy efficiency equipment

No reportable turnover was generated or material CapEx spent on the installation, maintenance and repair of energy efficiency equipment.

The OpEx for the taxonomy-eligible actions recorded in this connection in the reporting year amounted to €2 million (1% of total OpEx). This includes measures such as exchanging old light sources for more energy-efficient LED light sources in buildings and production and maintenance halls.

The technical screening criteria required for taxonomy alignment were not fully met in fiscal year 2024.

7.7 Acquisition and ownership of buildings

The acquisition and ownership of buildings is not an activity that impacts MTU's turnover.

All buildings and rights of use to buildings included in this economic activity were taken into account when determining taxonomy-eligible capital expenditures.

The reported taxonomy-eligible CapEx amounted to €78 million in the reporting year and was therefore 10% of MTU's total capital expenditures. Taxonomy alignment was established for some of the new buildings. This involved checking the primary energy requirements and compliance with the criteria for energy-efficient building operation, among other things. A climate risk analysis was carried out for the Munich site to ensure compliance with the DNSH criteria. The taxonomy-aligned CapEx amounted to €37 million in fiscal year 2024 and was therefore 5% of MTU's total capital expenditures.

The taxonomy-eligible OpEx for the buildings recognized in the reporting year was €3 million (1% of total OpEx) in the Group.

8.1 Data processing, hosting and related activities

This economic activity comprises the internal activities associated with MTU's data centers and server rooms, such as expenditures on server rooms including servers, storage and network equipment, and the maintenance and operation of energy-efficient IT infrastructures that help to reduce energy consumption, e.g. cooling systems with lower energy consumption, optimization of hardware to reduce power consumption.

As these are internal activities, no reportable turnover is generated in this economic activity. There is also no material OpEx in connection with this economic activity.

The taxonomy-eligible CapEx associated with this activity for the 2024 fiscal year was 1% (€11 million).

Taxonomy alignment was not achieved for fiscal year 2024 as the requirement for a significant contribution to climate change mitigation was not met.

9.1 Close to market research, development and innovation

This economic activity comprises MTU's research activities, in accordance with capital expenditure plans, on new engine technologies that are intended to lead to a reduction in GHG emissions and thus to an expansion of the taxonomy-aligned economic activity 3.21 Manufacturing of aircraft. Overall, these are various research projects that MTU expects to achieve Taxonomy alignment within the next five to nine years in accordance with economic activity 9.1 Close to market research, development and innovation.

As part of the capital expenditure plans, taxonomy-aligned CapEx for 2024 resulting from economic activity 9.1 Close to market research, development and innovation amounted to €9 million (or 1% of total MTU CapEx).

The taxonomy-aligned OpEx for research and development allocated to activity 9.1 was €40 million in the 2024 fiscal year and thus represents 14% of operating expenditures. This portion consists of non-capitalized research and development expenses in connection with MTU's research activities on new engine technologies in accordance with capital expenditure plans.

Besides the substantial contribution and the minimum safeguards standards, the "do no significant harm" (DNSH) requirements for the corresponding engines were also met in order to achieve alignment. To this end, a climate risk analysis was carried out in accordance with Appendix A. On the other hand, no risks were identified for environmental objectives 3-6 (sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, protection and restoration of biodiversity and ecosystems).

Taxonomy-aligned operating expenditures fell by 44% compared to the previous year. This development is mainly due to the fact that one of the research projects will not reach the required level of technological maturity within the specified time frame as planned. This also results in an adjustment to the disclosures on taxonomy alignment for the two previous years of 2022 and 2023. Accordingly, taxonomy-aligned OpEx is €4 million lower for fiscal year 2022 and €9 million lower for fiscal year 2023. Taxonomy-aligned CapEx for the two previous years remains unaffected.

Template: Proportion of turnover from products or services associated with taxonomy-aligned economic activities – disclosure covering year 2024

Fiscal year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code	Turnover	Proportion of turnover, year 2024	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Minimum safeguards	Proportion of taxonomy-aligned (A.1) or taxonomy-eligible (A.2) turnover, 2023	Category enabling activity	Category transitional activity
Economic activities		in € million	%	Y; N; N/EL[1]	Y; N; N/EL[1]	Y; N; N/EL[1]	Y; N; N/EL[1]	Y; N; N/EL[1]	Y; N; N/EL[1]	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1 Environmentally sustainable activities (Taxonomy-aligned)																			
Manufacturing of aircraft	CCM 3.21	1,151	16	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y			T
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**1,151**	**16**	**16%**						**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**			
of which enabling																		E	
of which transitional		1,151	16	16%						Y	Y	Y	Y	Y	Y	Y			T

Template: Proportion of turnover from products or services associated with taxonomy-aligned economic activities – disclosure covering year 2024

Fiscal year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code	Turnover	Proportion of turnover, year 2024	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Minimum safeguards	Proportion of taxonomy-aligned (A.1) or taxonomy-eligible (A.2) turnover, 2023	Category enabling activity	Category transitional activity
Economic activities		in € million	%	EL; N/EL[1]	EL; N/EL[1]	EL; N/EL[1]	EL; N/EL[1]	EL; N/EL[1]	EL; N/EL[1]								%		
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Manufacturing of aircraft	CCM 3.21	5,680	77	EL	N/EL	N/EL	N/EL	N/EL	N/EL								91		
Leasing of aircraft	CCM 6.18	176	2	EL	N/EL	N/EL	N/EL	N/EL	N/EL								2		
Turnover of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		**5,856**	**79**	**79%**													**92**		
A. Turnover of Taxonomy-eligible activities (A.1 + A.2)		**7,007**	**95**	**95%**													**92**		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
Turnover of taxonomy-non-eligible activities		**404**	**5**														**8**		
TOTAL		**7,411**	**100**														**100**		

[1] Y - Yes, Taxonomy-eligible and taxonomy-aligned activity with the relevant environmental objective; N - No, taxonomy-eligible but not taxonomy-aligned activity with the relevant environmental objective; N/EL- not eligible, taxonomy non-eligible activity for the relevant environmental objective; EL - Taxonomy-eligible for the relevant environmental objective.

The following table shows the extent of taxonomy eligibility and taxonomy alignment for turnover for each environmental objective:

Proportion of turnover / total turnover

	Taxonomy-aligned per objective	Taxonomy-eligible per objective
CCM	16%	95%
CCA	%	%
WTR	%	%
CE	%	%
PPC	%	%
BIO	%	%

Template: Proportion of CapEx from products or services associated with taxonomy-aligned economic activities – disclosure covering year 2024

Fiscal year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code	CapEx	Proportion of CapEx, 2024	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Minimum safeguards	Proportion of taxonomy-aligned (A.1) or taxonomy-eligible (A.2) CapEx, 2023	Category enabling activity	Category transitional activity
Economic activities		in € million	%	Y; N; N/EL[1]	Y; N; N/EL[1]	Y; N; N/EL[1]	Y; N; N/EL[1]	Y; N; N/EL[1]	Y; N; N/EL[1]	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1 Environmentally sustainable activities (Taxonomy-aligned)																			
Manufacturing of aircraft	CCM 3.21	74	9	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y			T
Production of heat/cool from geothermal energy	CCM 4.22	17	2	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y			
Acquisition and ownership of buildings	CCM 7.7	37	5	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y			
Close to market research, development and innovation	CCM 9.1	9	1	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	3	E	
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**137**	**17**	**17%**						**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**3**		
of which enabling		9	1	1%						Y	Y	Y	Y	Y	Y	Y	3	E	
of which transitional		74	9	9%						Y	Y	Y	Y	Y	Y	Y			T

Template: Proportion of CapEx from products or services associated with taxonomy-aligned economic activities – disclosure covering year 2024

Fiscal year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code	CapEx	Proportion of CapEx, 2024	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Minimum safeguards	Proportion of taxonomy-aligned (A.1) or taxonomy-eligible (A.2) CapEx, 2023	Category enabling activity	Category transitional activity
Economic activities		in € million	%	EL; N/EL[1]	EL; N/EL[1]	EL; N/EL[1]	EL; N/EL[1]	EL; N/EL[1]	EL; N/EL[1]								%		
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)																			
Manufacturing of aircraft	CCM 3.21	351	44	EL	N/EL	N/EL	N/EL	N/EL	N/EL								49		
Leasing of aircraft	CCM 6.18	116	15	EL	N/EL	N/EL	N/EL	N/EL	N/EL								13		
Renovation of existing buildings	CCM 7.2 / CE 3.2	8	1	EL	N/EL	N/EL	N/EL	EL	N/EL								3		
Acquisition and ownership of buildings	CCM 7.7	41	5	EL	N/EL	N/EL	N/EL	N/EL	N/EL								12		
Data processing, hosting and related activities	CCM 8.1	11	1	EL	N/EL	N/EL	N/EL	N/EL	N/EL								2		
CapEx of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		**527**	**67**	**67%**													**80**		
A. CapEx of taxonomy- eligible activities (A.1 + A.2)		**664**	**84**	**84%**													**83**		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
CapEx of taxonomy-non-eligible activities		**127**	**16**														**17**		
TOTAL		**791**	**100**														**100**		

[1] Y - Yes, taxonomy-eligible activity that is taxonomy-aligned with the relevant environmental objective; N - No, taxonomy-eligible activity but not taxonomy-aligned with the relevant environmental objective; N/EL - Taxonomy-non-eligible activity for the respective environmental objective; EL - Taxonomy-eligible activity for the respective environmental objective.

The following table shows the extent of taxonomy eligibility and taxonomy alignment for CapEx for each environmental objective:

Proportion of CapEx / total CapEx

	Taxonomy-aligned per objective	Taxonomy-eligible per objective
CCM	17%	84%
CCA	%	%
WTR	%	%
CE	%	1%
PPC	%	%
BIO	%	%

Template: Proportion of OpEx from products or services associated with taxonomy-aligned economic activities – disclosure covering year 2024

Financial year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code	OpEx	Proportion of OpEx, 2024	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Minimum safeguards	Proportion of taxonomy- aligned (A.1) or taxonomy-eligible (A.2) OpEx, 2023	Category enabling activity	Category transitional activity
Economic activitie		in € million	%	Y; N; N/EL[1]	Y; N; N/EL[1]	Y; N; N/EL[1]	Y; N; N/EL[1]	Y; N; N/EL[1]	Y; N; N/EL[1]	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1 Environmentally sustainable activities (Taxonomy-aligned)																			
Manufacturing of aircraft	CCM 3.21	23	8	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y			T
Close to market research, development and innovation	CCM 9.1	40	14	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	25	E	
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**63**	**22**	**22%**						**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**25**		
of which enabling		40	14	14%						Y	Y	Y	Y	Y	Y	Y	25	E	
of which transitional		23	8	8%						Y	Y	Y	Y	Y	Y	Y			T

Template: Proportion of OpEx from products or services associated with taxonomy-aligned economic activities – disclosure covering year 2024

Financial year 2024	2024			Substantial contribution criteria						DNSH criteria									
	Code	OpEx	Proportion of OpEx, 2024	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Minimum safeguards	Proportion of taxonomy- aligned (A. 1) or taxonomy-eligible (A. 2) OpEx, 2023	Category enabling activity	Category transitional activity
Economic activitie		in € million	%	EL; N/EL[1]	EL; N/EL[1]	EL; N/EL[1]	EL; N/EL[1]	EL; N/EL[1]	EL; N/EL[1]								%		
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Manufacturing of aircraft	CCM 3.21	158	55	EL	N/EL	N/EL	N/EL	N/EL	N/EL								54		
Leasing of aircraft	CCM 6.18	8	3	EL	N/EL	N/EL	N/EL	N/EL	N/EL								2		
Renovation of existing buildings	CCM 7.2 / CE 3.2	4	1	EL	N/EL	N/EL	N/EL	EL	N/EL								1		
Installation, maintenance and repair of energy efficiency equipment	CCM 7.3	2	1	EL	N/EL	N/EL	N/EL	N/EL	N/EL										
Acquisition and ownership of buildings	CCM 7.7	3	1	EL	N/EL	N/EL	N/EL	N/EL	N/EL								1		
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**173**	**61**	**61%**													**58**		
A. OpEx of Taxonomy-eligible activities (A.1 + A.2)		**236**	**83**	**83%**													**83**		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
OpEx of Taxonomy-non-eligible activities		**49**	**17**														**17**		
TOTAL		**285**	**100**														**100**		

[1] Y - Yes, taxonomy-eligible activity that is taxonomy-aligned with the relevant environmental objective; N - No, taxonomy-eligible activity but not taxonomy-aligned with the relevant environmental objective; N/EL - Taxonomy-non-eligible activity for the respective environmental objective; EL - Taxonomy-eligible activity for the respective environmental objective.

The following table shows the extent of taxonomy eligibility and taxonomy alignment for OpEx for each environmental objective:

Proportion of OpEx / total OpEx

	Taxonomy-aligned per objective	Taxonomy-eligible per objective
CCM	22%	83%
CCA	%	%
WTR	%	%
CE	%	1%
PPC	%	%
BIO	%	%

Template 1 Nuclear and fossil gas related activities

Row	Nuclear energy related activities	
1.	The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle.	No
2.	The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies.	No
3.	The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades.	No
	Fossil gas related activities	
4.	The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels.	No
5.	The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels.	No
6.	The undertaking carries out, funds or has exposures to construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels.	No

Climate change (E1)

Transition plan for climate change mitigation (E1-1)

MTU has set itself GHG emission reduction targets as part of its sustainability strategy. With its ecoRoadmap strategy, MTU aims to permanently reduce the use of fossil fuels and greenhouse gas (GHG) emissions at its own production and maintenance sites. By 2030, Scope 1 and Scope 2 emissions are to be reduced by 60% compared to the base year 2019. When setting its targets, MTU was guided by the EU Green Deal and the underlying objective of the Paris Agreement, which aims to limit global warming to 1.5 °C.

MTU's transition plan currently consists of two key elements: the ecoRoadmap and the Clean Air Engine (Claire) technology agenda, both of which are being continuously developed to achieve MTU's targets.

Climate change mitigation in MTU's own business operations

The production and maintenance of engines results in high energy consumption and associated GHG emissions at MTU's own sites. In order to achieve the GHG emission reduction targets, the following decarbonization measures in particular were identified in MTU's own operational processes: increasing energy efficiency, expanding self-generation of energy and purchasing renewable energy.

MTU aims to increase energy efficiency by modernizing machinery and building technology systems, switching to LED lighting and implementing improvement measures such as eliminating compressed air leaks. Emissions caused by heating are also to be reduced by optimizing the heating network, using heat pumps and renovating buildings.

MTU is switching to renewable energy sources in order to reduce its consumption of fossil sources of energy and the associated emissions. These include the expansion of MTU's own energy generation through the installation of geothermal-energy and photovoltaic systems and the purchase of renewable gas (RNG) and green electricity.

Significant progress was made on the implementation of climate change mitigation measures in the 2024 reporting year. Of particular note is the entry into service of MTU's largest photovoltaic system at the site in Serbia with extensive self-generation of renewable energy. In addition, deep geothermal drilling was completed at the Munich site, marking a key milestone for the future use of renewable energy from geothermal sources.

MTU identified locked-in GHG emissions in the production buildings. Measures to reduce emissions at these buildings in parallel with the operating business are associated with technical and logistical challenges. For this reason, measures cannot always be implemented in the short term but require more planning and a longer lead time. To reduce the risk of non-fulfillment of the reduction target for 2030, MTU updates a detailed plan of ecoRoadmap measures every year and steers towards the respective improvements by prioritizing measures.

One challenge is to reduce the GHG emissions released by the consumption of kerosene at the research and development test stations and through maintenance. MTU therefore supports the use of sustainable aviation fuels (SAF) in the needed test operation of the engines. The emissions from the test stations involve potential locked-in GHG emissions. This fuel switch is highly dependent on actual market availability and is therefore a decarbonization lever that will become increasingly important for a long-term target.

In addition to the ongoing development of decarbonization measures as part of its own operations, MTU is also focusing on the development of efficient propulsion systems in the use phase of MTU products.

Climate change mitigation in upstream and downstream business activities

The efficiency of MTU's products has an impact on an engine's overall efficiency. The MTU components enable kerosene consumption to be reduced, thereby contributing to lower CO_2 emissions in air traffic. Together with Pratt & Whitney, MTU offers the geared turbofan (GTF), a modern engine that reduces fuel consumption and is already being used successfully on the market, for example in the PW1100G-JM engine for the Airbus A320neo. With 16-20% fewer CO_2 emissions than the previous generation, the GTF family reduces the climate impact of air traffic. Further options for technologies that reduce fuel consumption or emissions are currently being pursued in MTU's technology roadmap.

The development of low-emission products is one of MTU's core visions. Following the update of MTU's Technology Agenda Claire in 2022, it now covers a time horizon of approx. 30 years. In Claire, MTU not only defines quantitative climate targets with regard to CO_2 and NOx emissions, the formation of contrails and lower energy consumption but also presents ideas for achieving them. However, the date of any potential entry into service depends on the feasibility of new technologies and the overall acceptance of and demand for new propulsion technologies by customers (airlines and lessors).

From MTU's point of view, sustainable aviation fuels (SAF) are essential for reducing emissions from aviation. This depends to a large extent on the long-term availability of sustainable aviation fuels. The use of MTU's engines is currently associated with locked in emissions. For this reason, MTU is committed to SAF. The idea is to shift away from consuming fossil fuels and towards sustainable renewable fuels. MTU is doing its part to ensure that this potential is harnessed for aviation. It is a member of aireg (Aviation Initiative for Renewable Energy in Germany e.V.) and also uses SAF tests to investigate the effects of alternative fuels on the operating behavior and functionality of aircraft engines.

In order to identify further decarbonization levers, MTU calculates Scope 3 GHG emissions along the entire upstream and downstream value chain. In addition to the significant Scope 3 category "Use of sold products", high emissions are also generated in the Scope 3 category "Purchased goods & services," in particular from the production of engine parts and the maintenance and repair of engines. As MTU has investments in companies that also have operations in the energy-intensive aviation sector, GHG emissions also arise outside MTU's own operations in the Scope 3.15 category "Investments."

Emissions in the Scope 3.1 category "Purchased goods and services" and Scope 3.15 category "Investments" were largely calculated on the basis of expenditures and revenue. MTU is endeavoring to improve the data quality for this calculation in order to drive forward the development of reduction targets for Scope 3.

Capital expenditures and financial resources to support the implementation of the transition plan

With its R&D activities, MTU is actively promoting low-emission aviation while investing in the future of its business model at the same time. In 2024, the focus of R&D activities contributing to MTU's transition plan was on further increasing the efficiency of the next-generation geared turbofan and developing the technology for the Flying Fuel Cell, which, as the propulsion system of the future, has no harmful emissions other than water. These capital expenditures and financing support the technological development of sustainable propulsion systems, as set out in the MTU Technology Agenda Claire. Furthermore, these are partially related to taxonomy-aligned OpEx and CapEx from MTU's CapEx plan under activity 9.1 Close to market research, development and innovation, as required by Delegated Regulation (EU) 2021/2178. The total capital and operating expenditures of this CapEx plan amounted to around €49 million in 2024. Further information on the CapEx plan can be found under *Disclosures pursuant to Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation)*. The further development of the GTF also results in taxonomy-aligned capital expenditures under economic activity 3.21 Manufacturing of aircraft.

In 2024, MTU also invested in self-generation of renewable energy, energy-efficiency measures and the purchase of renewable energy as part of the company's climate strategy. These capital expenditures also contribute to MTU's transition plan and is largely reflected in the taxonomy-aligned CapEx of economic activity 4.22 Production of heat/cool from geothermal energy.

The taxonomy-aligned capital expenditures in 2024 contributing to MTU's transition plan for climate change mitigation are shown in the table below.

Taxonomy-aligned capital expenditures contributing to the transition plan for climate change mitigation

Economic activities in 2024

CapEx in € million	Taxonomy-aligned CapEx
3.21 Manufacturing of aircraft	15
4.22 Production of heat/cool from geothermal energy	17
9.1 Close to market research, development and innovation	9

In total, MTU's financial resources for the implementation of a transition plan amounted to €115 million in 2024. This amount is attributable to the implementation of energy efficiency measures at MTU's consolidated sites as well as the measures already mentioned, such as research and development and self-generation of renewable energies. More details on actions in connection with MTU's climate change policies are set out in *Actions and resources in relation to climate change policies (E1-3)*.

MTU is working to adapt its economic activities in accordance with the provisions of EU Regulation 2021/2139 in order to transition to a more sustainable economy. This includes investing in the research and development of climate-friendly engine technologies to contribute to the sustainability of the aviation industry, and investing in technologies to reduce fossil fuel consumption and GHG emissions. The company actively monitors capital expenditures and operating expenditures associated with its Claire technology agenda and ecoRoadmap climate strategy to facilitate this transition. It also undertakes economic activities that are related to climate change mitigation and meet the criteria of the EU Taxonomy Regulation. MTU endeavors to continuously adapt its economic activities to the criteria of the Regulation, but did not set any specific targets for adaptations in the reporting year.

The continuous development and improvement of production for a low-carbon economy is part of MTU's business strategy and is documented in the ecoRoadmap climate strategy. With its Claire technology agenda, MTU is working intensively to reduce the climate impact and fuel consumption of aircraft engines in various phases. Thus, the transition plan is part of MTU's business strategy and financial planning.

The roadmaps and actions were approved by MTU's Executive Board.

MTU is not excluded from the EU Climate Transition Benchmarks aligned with the Paris Agreement, in accordance with the exclusion criteria specified in Article 12 paragraph 1 (d) to (g) and Article 12 paragraph 2 of Commission Delegated Regulation (EU) 2020/1818 (Climate Benchmark Standards Regulation).

Material impacts, risks and opportunities and their interaction with strategy and business model (E1-SBM-3)

MTU conducted a resilience analysis for its own business operations and the downstream value chain in order to further assess climate-related physical risks and climate-related transition risks. The starting point for the resilience analysis was the climate risk and climate scenario analysis (see *Description of the process to identify and assess material impacts, risks and opportunities (IRO-1)*). As the climate risk analysis did not identify any material physical risks within MTU's activities or the upstream and downstream value chain, nor any material transition risks in the upstream value chain, the resilience analysis currently focuses on transition risks for MTU's own business operations and the downstream value chain.

The transition risks considered in the context of the climate scenario analysis include regulatory changes, market changes, technological advances and reputational impacts associated with the transition to a low-carbon economy, as well as increasing stakeholder demands. The identified risks and opportunities were assessed based on their potential impact on MTU's business model, financial performance and strategic targets.

For the analysis of transition events described under *Description of the process to identify and assess material impacts, risks and opportunities (IRO-1)*, various transition scenarios have been analyzed since 2023 and the impact on MTU's business activities assessed. A key focus was on investigating the impacts of change in international air traffic and climate-related transition events. The target of limiting global warming to 1.5°C is taken into account. In addition to the rising expectations of external stakeholders, the transition events considered included the increasing price of GHG emissions and fuels, the gradual introduction of minimum requirements for SAF (e.g. as part of the EU's ReFuelEU aviation initiative) and partial flight and flight route restrictions.

Failure to achieve the climate targets was identified as a significant transition risk, as this could worsen perceptions among external stakeholders and customers, damage the company's reputation in the long term and have negative financial effects. Other transition events, such as the rising cost of carbon emissions and SAF/fuel, could lead to lower demand for air travel in the long term.

The time horizon of the resilience analysis was based on key international climate policy milestones and climate scenarios and was adjusted in line with the time horizons described in IRO-1. The time horizon for the greenhouse gas reduction targets relates to the year 2030.

To assess resilience, MTU's climate change mitigation activities and resources were taken into account as risk mitigants. The resilience analysis is an aid to understanding MTU's transition risks and can help the company make strategic decisions amid complex and uncertain circumstances.

Uncertainties in the resilience analysis arise from the assumptions made about transition events that go beyond the currently foreseeable political agenda and can currently only be modeled based on assumptions. These are reviewed annually and updated as part of the climate scenario and climate resilience analysis.

MTU's resilience analysis showed that the introduction of the ecoRoadmap and its integration into MTU's strategy had already led to important measures being taken to mitigate climate change and maintain the company's ability to innovate. The results of the resilience analysis also underlined the fact that MTU's strategic orientation was already factoring in many of the risks and opportunities identified in connection with climate change, regardless of their materiality. Adapting MTU's business model to the challenges of climate change is a key component of the corporate strategy, currently operationalized through the Claire agenda and the ecoRoadmap.

Based on the resilience analysis for physical climate and transition risks, MTU is confident that it can secure constant access to funding at a reasonable cost of capital and respond flexibly to changing climatic and regulatory conditions while simultaneously enhancing its competitiveness.

Policies related to climate change mitigation and adaptation (E1-2)

MTU has policies in place to manage impacts, risks, and opportunities related to climate change. The following central policies were implemented with regard to actions for mitigating climate change and saving energy. The policies related to climate change do not currently specifically address the topic of climate change adaptation.

MTU climate protection manual incl. annex

Content	This policy for climate change mitigation within MTU's own business operations aims to keep resource and energy consumption as low as possible and reduce the company's greenhouse gas emissions. The policy encompasses data collection and reporting for the calculation of GHG emissions and describes the general calculation principles and the company's GHG emission reduction targets. Furthermore, the process is defined from the idea to the implementation of actions to achieve the target and is operationalized via the company's ecoRoadmap climate strategy. The policy addresses climate change mitigation, energy efficiency and the deployment of renewable energy.
Target	As part of its climate strategy, MTU has defined a 60% reduction in CO_2e emissions by 2030 at the latest, starting from the base year 2019. The target is therefore based on the Paris Agreement on limiting global warming to 1.5 °C.
Associated material impacts, risks and opportunities	As an industrial company that manufactures and maintains parts for aircraft engines, MTU produces GHG emissions in Scope 1 and Scope 2 from production, repair and testing. This has a negative impact on the environment.
Monitoring	The policy is monitored through monthly internal reporting and an evaluation of target achievement during the year. Regular reports are also provided to the CS Board and the CSO.
Scope	Own operations (Scope 1 and Scope 2) of the six largest production and maintenance sites: / MTU Aero Engines AG (Munich) / MTU Aero Engines Polska sp. z o. o. / Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Canada Ltd. / MTU Maintenance Hannover GmbH / MTU Maintenance Serbia d.o.o. They account for 89.0% of MTU's Scope 1 and location-based Scope 2 emissions in 2024.
Responsible organizational level	The climate and environmental protection department and, at management level, the Executive Board and CSO are responsible for implementing the climate protection manual.
Third-party standards or initiatives	GHG Protocol, Paris Agreement
Availability	The policy is not publicly available and can only be accessed via the document management system for MTU employees.

Procedural instructions for evaluating environmentally relevant aspects in product design	
Content	These procedural instructions describe how environmentally relevant aspects are considered in product design. During the design of products, environmentally relevant aspects (such as low consumption and reduced emissions in the production and use phase) are evaluated by the designer and consulting departments. MTU's design system ensures that this evaluation is possible and is checked at defined points in the development process. The policy describes, among other things, which environmentally relevant aspects are directly determined or indirectly influenced by product design. This policy addresses climate change mitigation and energy efficiency related to MTU's products.
Target	Reduction of environmental impacts both in the use phase as well as in manufacturing and maintenance (such as low consumption and reduced emissions). Additionally, the use of more environmentally friendly materials and operating substances.
Associated material impacts, risks and opportunities	MTU's products are modules for engines in the aviation sector. The emissions generated by these products during the use phase have an actual negative impact on the environment by contributing to global warming
Monitoring	To ensure that environmentally relevant aspects are taken into account in product design, the MTU planning system defines points in product development at which the current state of development is checked (e.g. technical reviews and gate reviews). As part of the provisions, questionnaires containing documentation of the evaluation of the design on the basis of environmentally relevant criteria must be completed.
Scope	The policies are decisive in the development of new products and affect all technical departments in development at the following sites: / MTU Aero Engines AG (Munich) / MTU Aero Engines North America Inc. / MTU Aero Engines Polska sp. z o. o.
Responsible organizational level	The Engineering Office is responsible for implementing and monitoring the procedural instructions for evaluating environmentally relevant aspects in product design.
Availability	The policy is not publicly available and can only be accessed via the document management system for MTU employees.

MTU recognizes the interconnectedness of social and environmental impacts, as well as the associated risks and opportunities. MTU has therefore implemented policies that address various sustainability matters, including those covered by multiple ESRS topics. The Supplier Code of Conduct covers several sustainability matters and is included under *Policies related to value chain workers (S2-1)*.

Actions and resources in relation to climate change policies (E1-3)

Through its commitment to climate change mitigation, MTU wants to make a contribution to achieving the targets of the Paris Agreement. The company is continuously reducing GHG emissions in development, production and maintenance activities at its facilities, thereby making a contribution to global climate change mitigation. In this context, the following actions were taken in the reporting year to achieve the climate targets MTU has set itself and to reduce MTU's GHG emissions.

Self-generation of renewable energy	
Key actions taken and outcomes achieved	MTU is constantly seizing opportunities to generate its own renewable energy within its own business area, for example through photovoltaic systems or geothermal energy, in order to reduce the need to purchase externally generated energy. In 2024, MTU's largest photovoltaic system was put into operation at MTU Maintenance Serbia d.o.o. This saved around 241 t CO_2e.
Key actions planned and time horizons for implementation	MTU plans to continuously further expand self-generation of renewable energy by 2030 – e.g., with photovoltaic or geothermal-energy systems. By generating its own renewable energy, the company aims to reduce GHG emissions by a further 7,600 t CO_2e by 2030.
Contribution to the policy objectives and requirements	The overall objective of the MTU climate protection manual is to reduce Scope 1 and 2 emissions by 60% by 2030. The implementation of the key actions contributes to the reduction of Scope 1 & 2 emissions by helping MTU to reduce the purchase of non-renewable, fossil based energy and self-generate renewable energy instead.
Progress	At MTU Aero Engines AG (Munich), deep drilling was carried out in 2024 for the installation of a geothermal system. The heat from the deep geothermal energy will be used for heating requirements at the site in future. Construction of the technical building should be completed by the second quarter of 2025. The ecoRoadmap is used to continuously evaluate and implement further actions.

Energy efficiency	
Key actions taken and outcomes achieved	MTU plans to reduce its energy consumption in the long term through continuous energy efficiency measures. Actions to reduce energy consumption and increase energy efficiency are implemented on an ongoing basis at the six largest operationally controlled production and maintenance locations. These actions include the ongoing modernization of machinery, process optimization and the implementation of energy efficiency measures in auxiliary equipment and facility management. In 2024, MTU was able to reduce emissions by 672 t CO_2e through the following key actions: / Improvement of temperature control in production areas and offices / Switch to LED lighting / Refurbishment of the heating system at the MTU Maintenance Hannover GmbH site / Optimization and replacement of machines and technical building systems, such as ventilation systems
Key actions planned and time horizons for implementation	By means of heat pumps and improvements to the heating network, further improvements that will enable savings of 2,800 metric tons of CO_2e are to be implemented by 2030.
Contribution to the policy objectives and requirements	The overall objective of the MTU Climate Protection Handbook is to reduce Scope 1 and 2 emissions by 60% by 2030. The implementation of the key actions contributes to the reduction of Scope 1 and 2 emissions and enables MTU to reduce energy consumption and thus emissions in its own operations with the aid of energy efficiency measures.
Progress	The ecoRoadmap is used to continuously evaluate and implement existing and new actions.

Purchase of renewable energy	
Key actions taken and outcomes achieved	To achieve a reduction in GHG emissions, high-quality renewable energy is purchased at the six largest MTU sites. In 2024, MTU procured 40.5% of its purchased energy through contractual instruments with unbundled attributes for energy generation.
Key actions planned and time horizons for implementation	MTU plans to continuously increase the share of purchased renewable energy at its six largest sites through contractual instruments with bundled and unbundled attributes for energy generation.
Contribution to the policy objectives and requirements	The overall objective of the MTU Climate Protection Handbook is to reduce Scope 1 and 2 emissions by 60% until 2030. The implementation of the key actions contributes to the reduction of Scope 1 & 2 emissions by helping MTU to reduce the purchase of non-renewable, fossil based energy and purchase renewable energy instead.
Progress	As of 2024, MTU has reduced its emissions by around 35,745 t CO_2e compared to the base year 2019 by purchasing renewable energy at its six largest sites.

In total, the energy efficiency measures and expansion of renewable energy as part of the eco-Roadmap climate strategy saved 914 t CO_2e in the reporting year. If the actions planned by MTU are implemented, a further reduction in emissions of 10,400 t CO_2e is expected.

Development of sustainable propulsion systems / Claire technology agenda

Key actions taken and outcomes achieved	MTU is continuously working on the development of solutions and concepts for sustainable commercial engines, thereby paving the way for low-emission flying (especially as part of the Claire technology agenda). All efforts are aimed at reducing climate impact (caused by CO_2 and NOx emissions and contrail formation) and lower energy consumption. Key elements include evolutionary enhancements of the gas turbine engine based on the geared turbofan and completely new, revolutionary propulsion concepts, such as the Flying Fuel Cell.
Key actions planned and time horizons for implementation	MTU's R&D activities are constantly ongoing, and it plans to continue its efforts in the long-term.
Contribution to the policy objectives and requirements	Reduction of environmental impacts in use phase (such as lower fuel consumption and fewer emissions) of MTU's products.
Progress	The first Claire phase was achieved with highly efficient engines (geared turbofan) from the Pratt & Whitney GTF™ engine family. MTU contributes key technologies to these engines. They are used in modern narrow-body aircraft and reduce fuel consumption and CO_2 emissions by 16–20% per flight compared to previous models. The geared turbofan has been on the market since 2016. Work has as well already started on the second generation of geared turbofan engines, which boast additional improvements. When powered by SAF or liquid hydrogen, next generation turbofans could reduce the climate impact of aircraft by as much as 65% compared to a gas turbine from the year 2000.

Significant capital expenditures (CapEx) and operating expenditures (OpEx) on actions to achieve MTU's sustainability targets amounted to €44 million (CapEx) and €71 million (OpEx) in fiscal year 2024. More information on MTU's CapEx and OpEx in this fiscal year can be found under *Capital expenditure in the Economic report of the combined management report* and under *Notes to the consolidated income statement in the Consolidated financial statements* section of the consolidated financial statements. These figures were analyzed with regard to actions for achieving the sustainability objectives, taking into account a materiality threshold. Additionally, the significant amounts of CapEx and OpEx for the implementation of the actions can be linked to the EU Taxonomy key performance indicators. The significant amounts of CapEx and OpEx that are required for the implementation of the actions and are also part of the EU Taxonomy reporting are shown in the following table:

Significant CapEx and OpEx on actions to achieve GHG emission reduction targets

in € million	Taxonomy-aligned	Taxonomy-eligible, but not aligned
Significant CapEx	41	3
Significant OpEx	44	2

A total amount of €49 million is part of MTU's CapEx plan in accordance with Delegated Regulation (EU) 2021/2178. This CapEx plan relates to economic activity 9.1 Close to market research, development and innovation. Further information on the CapEx plan can be found under *Disclosures pursuant to Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation)*. However, the OpEx and CapEx for implementing sustainable actions in 2024 do not fully meet the criteria of the CapEx and OpEx key performance indicators based on the EU Taxonomy. The reason for this difference is, firstly, that the requirements of the significant contribution and the DNSH criteria are not fully met. Secondly, a large proportion of research expenditures on sustainable propulsion systems cannot be allocated to economic activity 9.1 Close to market research, development and innovation or any other economic activity due to the requirements for technology maturity. In addition, externally financed funds for research and development are excluded from EU Taxonomy reporting.

Targets related to climate change mitigation and adaptation (E1-4)

By setting specific climate goals, MTU wants to play a part in achieving the climate targets set out in the Paris Agreement. When setting its own targets, MTU is guided by the European Green Deal, which is derived from the Paris Agreement's 1.5 °C target and aims for climate neutrality by 2050. GHG emission reduction targets for Scopes 1 and 2 have been established to this end. The targets are stated in CO_2 equivalents (CO_2e) and are based on gross emissions. MTU does not take account of GHG removals, the use of carbon credits or avoided emissions as a means of achieving the targets.

Reduction of Scope 1 & 2 emissions

Relationship to policy objectives	The target corresponds to the climate protection manual's overall objective. MTU has set itself the target of keeping resource and energy consumption as low as possible and thus reducing GHG emissions.
Objectives and period	MTU's target is to reduce Scope 1 and Scope 2 emissions by a total of 60% by 2030 compared to 2019 (ecoRoadmap). The target is measured in metric tons of CO_2e.
Scope	/ MTU Aero Engines AG (Munich) / MTU Aero Engines Polska sp. z o.o. / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Canada Ltd. / MTU Maintenance Hannover GmbH / MTU Maintenance Serbia d.o.o.
Base year and value	Starting from the base year 2019, the progress made in reducing Scope 1 and Scope 2 emissions is measured from the baseline value of 87,843 t CO_2e.
Methodologies and assumptions	MTU's target is science-based and aligned with the Paris Climate Agreement's 1.5 °C target. The resources of the Science Based Targets initiative (SBTi) were used to determine the target ambition. The target is not externally assured. The target was set without direct involvement by stakeholders.
Changes in targets and corresponding metrics	No adjustment was made to the defined targets.
Target achievement	In the current reporting year, MTU already recorded a 42.2% reduction in emissions compared to the base year 2019.

MTU has taken into account a range of climate scenarios, including one aligned with limiting global warming to 1.5 °C. This makes it possible to identify relevant developments in the environment, society, technology, markets, and policies, allowing MTU to determine the most effective decarbonization levers.

MTU used the SBTi Corporate Manual and SBTi criteria to determine its near-term targets.

MTU's GHG emission reduction targets were determined using SBTi's cross-sector decarbonization pathway (absolute emission reduction method), which according to SBTi is scientifically sound and compatible with limiting global warming to 1.5 °C. A reference target with the same base and target year would result in a reduction of 46.2% according to the SBTi reduction pathway.

The GHG emissions reduction target of a "60% reduction of Scope 1 and Scope 2 emissions by 2030 compared to the base year 2019" was based on, among other things, critical assumptions about future developments in relation to MTU's future growth, regulatory changes and the use of new technologies. These factors will impact both MTU's GHG emissions and its efforts to reduce emissions.

Future growth: If MTU experiences significant growth in operations, such as expanding production or increasing the scale of services, this could lead to higher GHG emissions by MTU. It becomes crucial to implement sustainable practices and technologies to ensure that emissions are managed and reduced in line with MTU's growth trajectory.

Regulatory factors: Changes in regulations and policies related to greenhouse gas emissions can directly impact MTU's emissions profile. Stricter emissions standards or the introduction of carbon pricing mechanisms may require MTU to adopt cleaner technologies, reduce emissions, or invest in offsets to comply with regulatory requirements.

New technologies: Advancements in clean and renewable technologies can provide opportunities to reduce GHG emissions. Implementing energy-efficient solutions, transitioning to renewable energy sources, and adopting low-carbon processes can also make a significant contribution to emission reductions. Being open to innovation and always up to date with emerging technologies is crucial in exploiting these opportunities.

MTU needs to proactively monitor and assess the potential impacts of future growth, regulatory factors, and new technologies on its emissions. By doing so, MTU can adapt its strategies, invest in sustainable practices, and seize opportunities to effectively manage and reduce its GHG emissions.

MTU has employed the market-based method to calculate Scope 2 emissions included in the target. As the emissions reduction target was already defined in 2021, the reporting boundaries of MTU's emissions reduction target and the GHG footprint are slightly different. For the target inventory, the six largest production and maintenance sites under operational control and therefore also with the greatest reduction requirements are included: MTU Aero Engines AG (Munich), MTU Maintenance Hannover GmbH, MTU Maintenance Berlin-Brandenburg GmbH, MTU Aero Engines Polska sp. z o.o., MTU Maintenance Canada Ltd. and MTU Maintenance Serbia d.o.o. Other locations are not currently included in the emissions reduction target. The target encompasses the following gases: CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, and NF_3. Sources included under Scope 1: natural gas, biogas, kerosene, SAF, fuels for the operation of the vehicle fleet, and under Scope 2: purchased electricity and district heat.

The target covers 93.4% of Scope 1 and 42.8% of Scope 2 in the reporting year. In total, this represents 74.8% of MTU's Scope 1 and Scope 2 emissions. The subsidiaries concerned also adhere to the same requirements, and their GHG reduction targets are subject to the same disclosures at the subsidiary level.

To ensure that the base year used to measure progress towards the target is representative, MTU chose 2019 as a representative year for establishing the baseline. Demand in the aviation industry was relatively stable in 2019, without the impact of extraordinary events such as the COVID-19 pandemic. This base year therefore provides a more accurate picture of emissions and activities. All activities at MTU's six largest production and maintenance sites were included in the target inventory when the baseline was created. This ensures that the baseline value represents the entirety of MTU's operations and provides a comprehensive foundation for measuring progress. In the event of significant changes to the target boundary or reporting boundary, the baseline value and base year will be adjusted accordingly.

Based on the decarbonization levers identified, MTU expects the following contributions to achieve the GHG emission reduction targets:

Contribution of the decarbonization levers to target achievement

		Base year 2019 in t CO_2e	Target for 2030 in t CO_2e
GHG emissions	Scope 1	41,439	29,000
	Scope 2	46,404	6,138
Self-generation of renewable energy	Scope 1	/	–7,000
	Scope 2	/	–800
Energy efficiency activities	Scope 1	/	–6,100
	Scope 2	/	–2,500
Purchase of renewable energy	Scope 1	/	–500
	Scope 2	/	–35,805

Self-generation and purchase of renewable energy: One significant lever for emissions reduction is fuel switching. MTU is switching from sourcing non-renewable fossil fuels to renewable energy sources. This includes sourcing renewable electricity for its operations and increasing self-generated renewable energy through the installation of, for example, photovoltaic (PV) systems and the utilization of geothermal energy. By shifting to renewable energy sources, MTU can reduce its Scope 1 and Scope 2 emissions associated with energy consumption.

Energy efficiency: One of MTU's key strategies for decarbonization is to reduce emissions by increasing energy efficiency measures that have been implemented since 2019. MTU aims to continuously reduce its energy consumption and CO_2e emissions by implementing energy-saving actions, optimizing processes and using energy-efficient technologies.

Energy consumption and mix (E1-5)

Pursuant to ESRS principles, MTU's energy consumption and energy mix in 2024 are as follows: The Group's total energy consumption amounted to 384,708 megawatt hours in that year. Fossil sources accounted for 62.5% of this, while 1.2% came from nuclear energy. 36.3% was obtained from renewable energy sources such as solar energy, wind power and biomass.

Energy consumption and mix

	2024
(1) Fuel consumption from coal and coal products (MWh)	0
(2) Fuel consumption from crude oil and petroleum products (MWh)	67,208
(3) Fuel consumption from natural gas (MWh)	124,868
(4) Fuel consumption from other fossil sources (MWh)	0
(5) Consumption of purchased or acquired electricity, heat, steam, and cooling from fossil sources (MWh)	48,296
(6) Total fossil energy consumption (MWh) (calculated as the sum of lines 1 to 5)	240,372
Share of fossil sources in total energy consumption (%)	62.5
(7) Consumption from nuclear sources (MWh)	4,524
Share of consumption from nuclear sources in total energy consumption (%)	1.2
(8) Fuel consumption for renewable sources, including biomass (also comprising industrial and municipal waste of biologic origin, biogas, renewable hydrogen, etc.) (MWh)	434
(9) Consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources (MWh)	138,858
(10) The consumption of self-generated non-fuel renewable energy (MWh)	520
(11) Total renewable energy consumption (MWh) (calculated as the sum of lines 8 to 10)	139,812
Share of renewable sources in total energy consumption (%)	36.3
Total consumption (MWh) (calculated as the sum of lines 6, 7 and 11)	**384,708**

MTU produced a total of 91,711 MWh of energy. Of this, 91,191 MWh come from non-renewable sources, and 520 MWh from renewable sources.

The following table shows the energy intensity of MTU's activities in high climate impact sectors in relation to the net revenue generated.

Energy intensity per million euros of net revenue

	2024
Total energy consumption from activities in high climate impact sectors per net revenue from activities in high climate impact sectors (MWh/€ million)	53.0

For information on net revenue, see the "Revenue" item in the *Notes to the consolidated income statement section of the consolidated financial statements.*

Gross Scopes 1, 2, 3 and Total GHG emissions (E1-6)

CO_2e emissions from production and maintenance activities (Scope 1 and Scope 2) mainly result from the energy consumption required to operate the facilities and test stations for engines. In 2024, Scope 1 emissions for the fully consolidated locations amounted to 42,290 metric tons of CO_2e and market-based Scope 2 emissions amounted to 21,884 metric tons of CO_2e. The emissions from investees, including associates, joint ventures, and unconsolidated subsidiaries not yet fully reflected in MTU's financial statements over which MTU has operational control were 415 metric tons of CO_2e in Scope 1 and 3,040 metric tons of CO_2e in Scope 2 (market-based) in 2024.

To calculate the Scope 1 emissions, MTU identified the direct emissions sources within the Group. The data used to calculate the Scope 1 emissions consists of MTU's energy consumption data. The collected activity data is multiplied by corresponding emission factors to determine the emissions. This approach is also used to determine the biogenic CO_2 emissions in Scope 1.

To calculate the Scope 2 emissions, MTU follows both location-based and market-based methods. To calculate the location-based emissions, MTU uses average energy generation emission factors specific to the respective sites. For market-based emissions, MTU quantified the GHG emissions from generators with whom MTU has contractual agreements for bundled and unbundled electricity. If no data on contractual instruments is available, MTU takes account of the emission factor of the corresponding residual mix, if available.

The following gases are taken into account when calculating emissions: CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, and NF_3. Emission factors from the GHG Protocol and MLC (formerly GaBi) databases are used to calculate Scope 1 and 2 emissions.

MTU discloses the biogenic CO_2 emissions resulting from the combustion of biomass within the Scope 1 reporting limits separately. These emissions amount to 84 t CO_2e. Greenhouse gases such as CH_4 and N_2O from the combustion of biomass are reported as part of the regular Scope 1 emissions.

The emission factors used to calculate Scope 2 emissions in the reporting year do not differentiate between fossil and biogenic CO_2 emissions, which is why MTU is unable to report any biogenic CO_2 emissions.

MTU operates installations that are subject to regulated Emission Trading Schemes (ETS). In 2024, the percentage of GHG emissions regulated under ETS was 71.1% in Scope 1.

In the reporting year, MTU was able to cover 35.0% of its energy requirements for electricity and district heating through contractual instruments with unbundled attributes for energy generation (green electricity certificates). No contractual instruments with bundled attributes for energy generation were used.

MTU's Scope 1 and 2 emissions

	Retrospective		Target	
	Base year[1] 2019	2024	2030	Annual % of the target / base year
Scope 1 GHG emissions				
Gross Scope 1 GHG emissions (tCO_2e)	41,439	42,705	29,000	3.0
Proportion of Scope 1 GHG emissions from regulated emissions trading schemes (in %)	/	71.1	/	/
Scope 2 GHG emissions				
Gross location-based Scope 2 GHG emissions (tCO_2e)	76,291	70,736	/	/
Gross market-based Scope 2 GHG emissions (tCO_2e)	46,404	24,924	6,138	8.7

[1] As the base year and the target were already defined before CSRD was introduced, the scope of the GHG target inventory for the base year and the target currently only includes locations that are part of the company's ecoRoadmap climate strategy. In accordance with the ESRS disclosure requirements, the GHG emissions for 2024 are reported for the group of consolidated companies described in the "General basis (BP-1)" section.

MTU has identified its significant Scope 3 categories by considering GHG emissions and criteria outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Version 2011, pp.61 and 65-68). This identification process considers factors such as magnitude of emissions, influence, transition risks and opportunities, stakeholder perspectives and sector specific criteria. The categories include 3.1 Purchased goods and services, 3.2 Capital goods, 3.4 Upstream transportation and distribution, 3.11 Use of sold products and 3.15 Investments. MTU updates its Scope 3 GHG emissions for each significant category annually based on current activity data. The results of the Scope 3 calculation for 2024 are shown in the table below:

MTU's significant Scope 3 emissions

	2024
Total gross indirect (Scope 3) GHG emissions (tCO_2e)	**6,044,133**
3.1 Purchased goods and services (tCO_2e)	912,906
3.2 Capital goods (tCO_2e)	103,249
3.4 Upstream transportation and distribution (tCO_2e)	54,931
3.11 Use of sold products (tCO_2e)	3,352,602
3.15 Investments (tCO_2e)	1,620,445

To determine each significant category of its Scope 3 emissions, MTU established clear reporting boundaries. The 3.1 category "Purchased goods and services" includes all upstream emissions (from production to the supplier's factory gate) from the production of goods (property, plant and equipment) and services (intangible assets) acquired by all companies over which MTU has operational control in the reporting year and that were not recognized in other Scope 3 categories. The GHG emissions in Scope 3.1 are determined based on spend and weight.

The Scope 3.1 GHG emissions were calculated using a hybrid data model that combines both spend- and weight-based calculation methodologies. The spend-based approach relies on the Environmentally Extended Input-Output Model (EEIO) while the weight-based approach calculates emissions by multiplying the weight of a material by its corresponding emission factor from the International Aerospace Environmental Group (IAEG) emission factor database. For companies for which no activity data could be collected, the data was extrapolated on the basis of revenue. As this is only a very small proportion of Scope 3.1 emissions, this does not result in any relevant measurement uncertainty.

The Scope 3.2 category "Capital goods" takes into account all upstream emissions (from cradle to gate) of the purchased capital goods of all companies over which MTU has operational control. The calculation methods for determining Scope 3.2 GHG emissions were spend-based (EEIO model). For companies whose activity data was not integrated, GHG emissions were extrapolated on the basis of revenue. As this is only a very small proportion of Scope 3.2 emissions, this does not result in any relevant measurement uncertainty.

The Scope-3.4 category "upstream transportation and distribution" includes emissions from the transportation and distribution of products purchased by MTU in the reporting year in vehicles and facilities not owned or controlled by MTU. The calculation methods for determining Scope 3.4 GHG emissions were spend-based (EEIO model). All companies over which MTU has operational control were also taken into account in the Scope 3.4 category. GHG emissions were extrapolated for companies whose activity data was not integrated. As this is only a very small proportion of Scope 3.4 emissions, this does not result in any relevant measurement uncertainty.

The Scope 3.11 category "Use of sold products" includes emissions from the use phase of MTU products sold in the reporting year. MTU uses ICAO life-cycle emission factors to calculate the emissions. A weight-based allocation method is taken into account for MTU's products.

Non-CO_2 effects arising from the use of products in aviation are not currently taken into account for two reasons:

1) The consequences of emissions, such as contrails from a mixture of water vapor and emitted particles (SO_2, CH, soot), are difficult to estimate and calculate accurately. Depending on climatic conditions, contrails can contribute to the formation of cirrus clouds. A uniform, standardized procedure for estimating their climate impact has not yet been established.

2) There are currently no substantial requirements from various regulatory and environmental organizations, such as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), IAEG or SBTi, to include non-CO_2 effects in emissions calculations. These organizations have not yet developed comprehensive guidelines or methodologies for assessing or considering any such effects in aviation. MTU will continue to monitor developments in this area and stay informed about any emerging standards or requirements from relevant regulatory and environmental bodies.

The Scope 3 categories include indirect Scope 3 GHG emissions from the consolidated Group companies (including the parent company and subsidiaries), associates, joint ventures, and unconsolidated subsidiaries over which MTU has operational control.

Additionally, MTU has identified Scope 1, 2, and 3 GHG emissions from associates, joint ventures, unconsolidated subsidiaries (investment entities), and joint arrangements over which MTU does not exercise operational control. These entities are part of MTU's upstream and downstream value chain and are included in the Scope 3.15 emissions with all Scope 1, 2 and 3 emissions via the Environmentally Extended Input-Output Model (EEIO).

The emissions falling under category 3.3 "Fuel and energy-related activities (not included in Scope 1 or Scope 2)", category 3.5 "Waste generated in operations", category 3.6 "Business travel", category 3.7 "Employee commuting", category 3.9 "Downstream transportation and distribution", category 3.10 "Processing of sold products", category 3.12 "End-of-life treatment of sold products" and category 3.13 "Downstream leased assets" are not considered significant due to their low level. Category 3.8 "Upstream leased assets" is not applicable to MTU, as MTU already reports emissions from leased assets in Scopes 1 and 2. Category 3.14 "Franchises" is also excluded, as MTU is not active in this area.

None of MTU's Scope 3 emissions are calculated using primary data sourced directly from its suppliers or other partners in its value chain yet.

The activity data and emission factors used for the Scope 3 calculation do not differentiate between the percentage share of biomass or biogenic CO_2, which is why MTU cannot report any biogenic CO_2 emissions.

For the reporting year, MTU's total GHG emissions from Scope 1, Scope 2 and significant Scope 3 categories are as follows:

MTU's total emissions

Total GHG emissions (tCO_2e)	2024
Total GHG emissions (location-based) (tCO_2e)	6,157,574
Total GHG emissions (market-based) (tCO_2e)	6,111,762

The following table shows the GHG intensity on the basis of net revenue in the reporting year.

GHG intensity based on net revenue

	2024
GHG intensity per million euros of net revenue (location-based) (tCO_2e/€ million)	848.7
GHG intensity per million euros of net revenue (market-based) (tCO_2e/€ million)	842.3

For information on net revenue, see the "Revenue" item in the *Notes to the consolidated income statement section of the consolidated financial statements.*

GHG removals and GHG mitigation projects financed through carbon credits (E1-7)

MTU uses carbon credits to mitigate the negative impacts of climate change outside its own value chain. These carbon credits are independent from the GHG emissions and the GHG emission reduction targets mentioned in sections E1-6 and E1-4, respectively. The carbon credits purchased meet high-quality standards and contribute to climate change mitigation by financing projects that promote GHG mitigation and removal.

In the 2024 fiscal year, MTU purchased 13,185 metric tons of carbon credits to externally offset GHG emissions outside its value chain. The carbon credits from removal projects come from biogenic sinks.

Metrics on carbon credits used

Carbon credits canceled for the reporting year	2024
Total (tCO_2e)	**13,185**
Share from removal projects (%)	30.3
Share from mitigation projects (%)	69.7
Recognized CDM quality standard (%)	68.3
Recognized VCS quality standard (%)	1.4
TÜV certificate for carbon storage (%)	30.3
Share from projects within the EU (%)	30.3
Share of carbon credits that qualify as corresponding adjustments (%)	0

For 2025 and 2026, MTU is also planning to cancel 10,000 t CO_2e outside its value chain on the basis of existing contractual agreements.

Carbon credits planned to be cancelled in the future

	Amount until 2025/2026
Total (tCO_2e)	**10,000**

MTU has not developed any projects for GHG removal and mitigation within its own value chain. For this reason, there are no metrics to report on this topic.

Internal carbon pricing (E1-8)

MTU does not currently apply internal carbon pricing schemes and therefore has no metrics to report for this topic.

Resource use and circular economy (E5)

Policies related to resource use and circular economy (E5-1)

MTU's long-standing expertise in the maintenance, repair, and overhaul (MRO) of engines and the resulting high quality of customer-specific or needs-based engine MRO services have a positive impact on resource use. MTU's MRO business makes a substantial contribution to the circular economy through only non-repairable parts being replaced while the rest of the engine is reused. The MRO services therefore contribute to prolonging products' service life.

The following policy is crucial for addressing the material impacts in the context of resource use and the circular economy:

Procedural instructions for evaluating environmentally relevant aspects in product design	
Content	In the context of the circular economy, the procedural instructions listed address the material impact in relation to MTU's resource outflows in production and maintenance, through resource-efficient production and repair methods and the use of REACH-compliant materials, recycled materials (in part) and recyclable materials in product design. The policy also supports the development and design of products with a long service life and useful life.
Associated material impacts, risks and opportunities	MTU's many years of experience in the MRO business ensure high quality in engine maintenance, which prolongs engine efficiency and service life. MTU has a positive impact on the circular economy because only necessary parts are replaced and the remaining part of the engine is reused. In this way, the MRO business of MTU makes a significant contribution to resource efficiency and the circular economy.

For further information on the policy, in particular on the objective, monitoring, scope of application, responsible organizational level and availability, see *Policies related to climate change mitigation and adaptation (E1-2): Procedural instructions for evaluating environmentally relevant aspects in product design*.

Actions and resources related to resource use and circular economy (E5-2)

The actions in relation to resource use and circular economy implemented in the reporting year and those planned for the future are presented below:

MTUPlus Intelligent Solutions: PERFORMPlus (smart repairs) and ValuePlus (smart reuse)	
Key actions taken and outcomes achieved	Smart repairs: MTU's MRO services are tailored to the customer's specific requirements. In addition to the age of the engine, factors including individual use and planned service life are considered to ensure an effective repair and efficient resource use (see also "Smart reuse"). MTU's engine trend monitoring also makes it possible to determine the optimum time for engine maintenance. This is determined on the basis of measurement points such as exhaust gas temperatures, fuel consumption and thrust combined with historical wear data. Furthermore, various factors such as a potential drop in performance on the wing, component wear and the (remaining) service life are taken into account. The continuous development of innovative measuring methods allows more efficient damage detection and tailored repair. Furthermore, maintenance work is conducted on-wing whenever feasible to extend the time between shop visits, reduce downtime and increase the service life of the engines. Since this year, an innovative measuring system that automatically detects and analyzes damage to critical parts has been in use at the MRO-site in Hanover. Compared to the previous process, a significant reduction in maintenance time is possible. Smart reuse: For mature engines it can be more effective to prioritize the installation of used spare parts instead of new parts. For this purpose MTU identifies suitable used engines, dismantles them, reconditions the reusable components, installs them in in-service engines and/or sells them at parts level.
Key actions planned and time horizons for implementation	Key actions planned for the next two years: ⁄ Implementation of the innovative measurement system for automated detection and evaluation of damage to critical components at other MRO sites, where possible. Key actions planned for the next three to five years: ⁄ Development of a borescope solution for improved inspection of engines directly on site – i.e., on-wing. ⁄ Introduction of an intelligent monitoring system for more efficient identification of suitable spare parts. The system is intended to enable a more precise assessment of the parts-level condition of in-service engines on the basis of use data. Key actions planned for the next ten years: ⁄ Development and use of digital twins of engines (virtual versions) across all life cycles. This is intended to accelerate the development of new products by minimizing design iterations, improve the recyclability of products and enable the early development of suitable repair processes.
Contribution to the policy objectives and require-ments	The procedural instructions for evaluating environmentally relevant aspects in product design also aim to reduce energy and material consumption for MRO activities. Implementing the aforementioned actions results in significantly shorter maintenance times (with automated measuring systems, early repair concepts using digital twins) and thus lower energy consumption. On-wing inspections reduce material and energy consumption. The consumption of resources is reduced by using spare parts from decommissioned engines and by optimizing the product design, for example to reduce component wear. In summary, all the above actions help to ensure compliance with the requirements of the procedural instructions for evaluating environmentally relevant aspects in product design.
Scope	Unless explicitly stated otherwise, the actions apply to all MRO sites.
Progress	The aforementioned actions with regard to the smart repair and reuse of parts are continuously implemented, optimized and expanded. Progress was made in, among other areas, digitalization, which enables more efficient detection and analysis of damage in the MRO business.

Targets related to resource use and circular economy (E5-3)

MTU has not yet defined an ESRS-compliant target for its first report. The effectiveness of the procedural instructions for evaluating environmentally relevant aspects in product design currently relates primarily to the reduction of climate impacts. The policy also has positive effects on resource use and circular economy; however, these are not currently recorded due to the wide range of topics. The actions implemented and planned have a positive influence on, for example, the reduction of disassembly and inspection times, the conservation of resources through the use of reusable parts or the performance of repairs, the faster development of repair procedures and the more efficient identification of reusable parts. MTU aims to establish suitable metrics for evaluating these actions with regard to the circular economy.

The continuous development and optimization of resource use and circular economy are an integral part of MTU's corporate strategy regardless of this. MTU pursues the strategic objective of continuous process optimization and resource efficiency in product development, product design, product manufacturing and the MRO business in order to be able to offer more environmentally friendly solutions in the future. This is also reflected in the continuous expansion of the product and service portfolio in the commercial maintenance business.

Resource outflows (E5-5)

MTU manufactures and repairs aircraft engines and aero-derivative stationary industrial gas turbines over their entire life cycle. Its core competencies lie in low-pressure turbines (LPT), high-pressure compressors (HPC), turbine center frames (TCF) and manufacturing and repair techniques, with commercial aviation representing MTU's dominant market. Its key products cover a wide range of commercial aviation engine programs. These can in turn be divided into market segments – Business Jets – Narrowbody / Regional Jets – Widebody Jets, which differ in terms of average flight hours, among other things. MTU products are used in a wide range of applications for which durability, reusability, reparability and disassembly are essential requirements, thus these principles are always taken into account in the development of the products. This also includes optimizing product or material usage through MRO business models. High-pressure compressors, low-pressure turbines and turbine center frames are designed to withstand the entire service life of the aircraft, with the assistance of suitable maintenance and servicing intervals. In the event that repairs are no longer feasible due to damage or wear, individual components (e.g. blades) can be replaced. In summary, the development, manufacture and maintenance of MTU products meet the circular economy criteria.

Durability of key MTU products

Key product	Durability in years of operation	Durability in operating hours
Business jets (BJ)	100%	100%
Narrowbody/Regional jets (RJ)	94.5%	93.7%
Widebody jets (WJ)	103.1%	93.6%
Total durability	**96.5%**	**95.2%**

For the first-time reporting of durability metrics for MTU's products, the metric was recorded and calculated in accordance with ESRS logic. Based on current data availability and verification, the durability of the key MTU products is determined on the basis of the service life of the respective aircraft type in which the MTU products are installed. The service life of the various aircraft types is also used to calculate the industry average. The figures here are forecast values based on an analysis of historical data, as most aircraft types have not yet reached their estimated service life due to the length of time they have been in service. The metrics therefore represent imputed values and cannot be related to the actual durability of the MTU products installed. Since the positive impact of the MRO business, for example with regard to the conservation of resources through the repair of components and the use of reusable components, cannot be assessed on the basis of the ESRS metric for durability, MTU plans to develop a specific KPI for this purpose.

Repairability of MTU products

MTU's key products, such as the high-pressure compressors and low-pressure turbines, are designed to withstand the entire service life of the aircraft. This is ensured by regular and user-oriented maintenance and servicing intervals, which, in addition to flight safety, are intended to guarantee efficient operation and a long service life. Repairability is therefore a key principle for MTU's products. During the use phase, repairs are carried out regularly on the basis of customer-specific maintenance plans, which are based on factors including the age of the engine, individual usage and customer feedback. Where possible, the identification of necessary maintenance measures is supported by MTU's engine trend monitoring. For maintenance, the engines can be disassembled modularly into their main components, so that targeted disassembly for the repair of specific components is possible and the complete engine does not need to be dismantled down to individual component level. Each part is inspected and categorized as either reusable, repairable, non-repairable due to damage or wear, or as a component that has reached the end of its life. MTU produces spare parts for key products in the latter two categories (non-repairable components, components that have reached the end of their life) beyond their program end. Additionally, MTU promotes the availability of spare parts for engines, including for engine programs that have been discontinued, by utilizing components from used, decommissioned engines to repair and extend the life of in-service engines.

Recyclability of MTU products

MTU products such as high-pressure compressors, low-pressure turbines and turbine center frames are primarily manufactured using nickel-based and titanium alloys. The recyclable content of the products is therefore correspondingly high.

Recyclable content in products and packaging

	Recyclable content
Products	98.2%
Packaging	94.9%

Social information

Own workforce (S1)

Material impacts, risks and opportunities and their interaction with strategy and business model (S1-SBM-3)

In the course of the materiality assessment, MTU identified various actual and potential positive and negative impacts related to its own workforce. The positive impacts identified relate primarily to the structural working conditions implemented and the further development of employee skills. The positive impacts are directly connected to MTU's corporate strategy. As committed and qualified employees are a central pillar of MTU's strategy, a wide range of actions are continuously being implemented to achieve positive effects for employees. These actions are outlined under *Taking action on material impacts and approaches to managing material risks and pursuing material opportunities related to own workforce, and effectiveness of those actions and approaches (S1-4)*.

None of the negative impacts on MTU's own workforce identified for the sustainability matters in the ESRS sub-topics of working conditions, equal treatment and opportunities for all and other work-related rights result directly from the business model or corporate strategy (see *Description of the process to identify and assess material impacts, risks and opportunities (IRO-1)* for a detailed discussion of the material impacts, risks and opportunities identified). Actual and potential impacts relating to general working conditions, such as the health and safety of the workforce, arise from the specific procedures and processes within production and maintenance services. These activities are linked to the business model but are not its driving elements. At the same time, ensuring the health and safety of the workforce is a fundamental part of MTU's corporate values, corporate strategy and operating activities. The results of the double materiality assessment are integrated into planning with regard to the policies, actions and targets relevant to employees and non-employees (see *Processes to remediate negative impacts and channels for own workers to raise concerns (S1-3)* and *Material impacts, risks and opportunities and their interaction with strategy and business model (SBM-3)* for more information). The link between the material risks, through impacts and dependencies with regard to employees and strategy is based on the strong correlation between highly qualified and motivated employees and the company's success. If MTU is unable to offer sustainably attractive working conditions, including appropriate wages, this could jeopardize its competitive advantage in attracting and retaining talent.

None of the material negative impacts identified in the materiality assessment are considered to be widespread or systemic in the context of the company's business operations.

In the disclosures on strategy and business model, MTU takes into account everyone in its workforce who may be materially affected by its activities, products, services or business relationships. All MTU employees are also included in the materiality assessment. MTU's workforce is divided into two groups in accordance with the ESRS: permanent and temporary employees (a detailed definition can be found under *Characteristics of the undertaking's employees (S1-6)*), and non-employees, in the sense of self-employed, agency or temporary workers who are not considered direct employees of MTU. Reporting for the group of non-employees is planned from fiscal year 2025.

MTU's identified positive impacts relate to the topics of secure employment, working time, work-life balance, health and safety, and training and skills development. These positive impacts benefit the workforce and are the result of MTU's comprehensive human resources strategy and its determination to actively promote corporate culture, for example through openness to change, the promotion of decision-making skills, entrepreneurship of employees and continuous dialogue with MTU employees (for more information on dialogue formats, see Process for engaging with own workforce *and workers' representatives about impacts (S1-2)* as well as *section G1 of this report on corporate culture*). MTU is continuously working to achieve positive effects through various actions. These include effective health and safety measures, such as ergonomic workstations, offering flexible working hours and mobile working options, strengthening internal communication through a feedback landscape and investing in ongoing training and development opportunities (for details, see *Taking action on material impacts on own workforce, and approaches to managing material risks and pursuing material opportunities related to own workforce, and effectiveness of those actions (S1-4)*). These positive impacts particularly affect MTU's employees.

MTU has identified no material impacts on its workforce resulting from the transition to reducing negative environmental impacts and achieving environmental and climate-neutral operations.

With regard to its business activities, MTU did not identify any areas that are exposed to the risk of incidents of forced labor, compulsory labor or child labor.

As part of its double materiality assessment, MTU identified certain groups within its workforce that are or could be negatively affected by certain impacts. In the process, MTU developed an understanding of how certain groups are or could be exposed to a higher risk. Based on the conducted analysis, the following groups of employees are at greater risk of harm:

- Employees at MTU sites involved in production or repair and maintenance work, including temporary employees and non-employees, are exposed to physical strain and various occupational hazards.
- With regard to working time, there is a potential negative impact due to the inequality between different working hour models for production and office jobs. Employees required to work shifts and weekends may find it difficult to balance work and private life, which can potentially have a negative impact on their well-being.

The identified material risk of personnel costs in the event of a higher staff turnover rate and low employer attractiveness due to inadequate or constrained working conditions is linked to the aforementioned potential negative impacts, if these were to actually occur, and relates in particular to MTU employees.

Policies related to own workforce (S1-1)

The dedicated and skilled workforce at MTU is the cornerstone of the company's success, driving innovation, operational excellence, and sustainable growth. MTU has therefore adopted comprehensive internal regulations to manage the material impacts and risks related to its own workforce. The most important policies affecting the workforce include: the company's policy statement on the protection of human rights, the Code of Conduct for employees, the manual for the implementation of human rights risk management at MTU (including corresponding environmental obligations), the agreement on responsibility in occupational health and safety and environmental protection, the agreement on documentation and reporting of accidents, continuous training / corporate works agreement on training and development, the corporate works agreement on disease prevention and integration of severely disabled individuals and the corporate works agreement on collaborative behavior in the workplace. All mentioned policies are outlined in accordance with ESRS minimum disclosure requirements for policies (MDR-P) at the end of this section.

At MTU, the respect and protection of human rights are recognized as fundamental values that are integral to MTU's operations worldwide. In its policy statement on the protection of human rights, MTU commits itself to complying with the principles of the UN Global Compact, the United Nations Universal Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, the UN Guiding Principles on Business and Human Rights (UNGPs) and the United Nations Sustainable Development Goals (SDG 5/8). MTU's policy statement is based on its commitment to the UNGPs and also on the OECD Guidelines for Multinational Enterprises. The principles for MTU's own workforce set out in the policy statement are a fundamental part of the integrated management system, the further policies and guidelines mentioned below, and the risk management processes. Of course, respect for human rights is not limited to activities within MTU's own operations but also applies to the business conduct of suppliers, service providers and other business partners.

MTU maintains an active dialogue with its employees to ensure that their voices are heard and their rights are protected. The engagement process revolves around fostering open and transparent communication, where employees are encouraged to voice their concerns, ideas, and feedback, including through employee surveys and dedicated communication platforms. The grievance mechanism allows employees to report any human rights concerns confidentially and without fear of retaliation.

The risk management system for the protection of human rights is designed in such a way that human rights violations and environmental due diligence obligations can be identified and minimized as much as possible. MTU acts according to the principle of "prevent – detect – respond". Unfortunately, violations can never be completely prevented. Upon receiving information of events that give rise to suspicion of possible misconduct, e.g. through the iTrust whistleblower system, MTU investigates them immediately and seeks solutions. The procedure involves both clarifying the facts and agreeing on and implementing necessary, appropriate and reasonable corrective action (further details can be found under *Processes to remediate negative impacts and channels for own workforce to raise concerns (S1-3)*). If necessary, the report is forwarded to the relevant parties, such as investigative authorities and contact persons at suppliers. For MTU, communication is the most important tool for clarifying the situation and preventing further incidents.

The policies with regard to MTU's own workforce are aligned with relevant internationally recognized instruments, including the UN Guiding Principles on Business and Human Rights. By performing regular reviews and updates of its policies, engaging in continuous training and education for employees, and maintaining open channels for feedback and information, MTU ensures that its policies are in line with these international standards.

MTU recognizes the respect and protection of human rights as fundamental values and opposes exploitative working conditions in any form. In particular, MTU strongly condemns child labor in all its forms. MTU is convinced that children need access to education in order to be able to develop without the risk of entering the workforce too early. The dignity of children must be respected, and their safety and health must be protected. Should MTU employ minors, for example in the context of apprenticeships, it strictly adheres to the core labor standards of the International Labour Organization (ILO), particularly concerning minimum age requirements. Employment relationships at MTU are voluntary and can be terminated by employees at any time of their own free will, taking into account statutory or otherwise reasonable notice periods. MTU strongly rejects forced or compulsory labor that is performed involuntariliy under threat of disadvantage or intimidation, as well as any other form of modern slavery in line with the ILO's core labor standards.

Employee health is a top priority for MTU. MTU provides occupational health and safety in the workplace in compliance with national regulations as a minimum standard. At MTU, the health and safety (H&S) management system is documented in the management manual as an integral part of the integrated management system (IMS) and is supplemented by the documentation and reporting of accidents and responsibility for occupational health and safety and environmental protection. The H&S management systems at MTU Aero Engines AG (Munich), MTU Maintenance Hannover GmbH, MTU Maintenance Berlin-Brandenburg GmbH, MTU Maintenance do Brasil Ltda., MTU Maintenance Australia Pty. Ltd. and MTU Maintenance Service Centre Ayutthaya Ltd. are also certified to ISO 45001. Workplaces are designed to minimize accidents and strain, adhering to legal and recognized safety standards. Managers at all levels ensure compliance with these regulations. At the same time, MTU encourages and enables employees to actively engage in health and safety activities and supports their physical and mental health. MTU also expects its suppliers to mitigate health and safety risks to their employees.

MTU is committed to equal opportunities for all employees and has implemented specific policies including the Code of Conduct and the corporate works agreement on collaborative behavior in the workplace. The policies are intended to prevent discrimination and harassment and promote diversity and inclusion. MTU is also a signatory to the Diversity Charter in Germany and cooperates with the "Impact of Diversity" initiative.

In its Code of Conduct, MTU explicitely rejects any form of discrimination, whether based on the basis of sex or gender, disability, ethnic origin or affiliation, religion or ideology, age or sexual orientation.

In addition, MTU has entered into further obligations in Germany with the corporate works agreement on disease prevention and the integration of severely disabled individuals, which includes specific measures for integration and support (workplace design, work organization, training, etc.).

MTU emphasizes through its policies that it rejects any form of discrimination and actively promotes diversity and inclusion overall. To this end, MTU provides a complaints procedure and a diversity officer for working conditions and equal opportunities. Employees can confidentially report concerns, incoming reports are reviewed and, if necessary, targeted action is taken, such as adjustments to working practices, increasing employee awareness, training employees or structural adjustments. The effectiveness of these measures is regularly evaluated in order to both resolve individual cases and achieve systematic improvements.

With regard to the Supplier Code of Conduct and compliance with the applicable ILO standards for ethical and responsible practices along the upstream value chain, please refer to the *Workers in the value chain (S2)* section of this report.

Policy statement on the protection of human rights

Content	This policy statement expresses an unconditional commitment to respecting and protecting human rights. The principles and values it sets out are an integral part of the systems and processes. MTU has committed to the principles of the UN Global Compact and views human rights protection as an essential component of its sustainable corporate governance and social, environmental, and societal responsibility. Upholding human rights is a stated goal, and MTU is committed to respecting them. The main topics forming part of the policy statement include the prohibition of child labor, the prohibition of forced labor, freedom of association, fair remuneration and working hours, non-discrimination, equal opportunities, training and qualification, and occupational safety / health and safety at work.
Target	The policy statement reflects MTU's commitment to upholding human rights and serves as a foundation for its policies and practices. Through this public commitment, MTU aims to encourage all stakeholders to adhere to these principles and to report any potential violations.
Associated material impacts, risks and opportunities	As all material sustainability matters relating to MTU's own workforce (with the exception of work-life balance) are anchored in the ILO conventions and the Universal Declaration of Human Rights, which MTU has committed to upholding in the policy statement on the protection of human rights, the statement covers all material impacts and risks in the social area.
Monitoring	The Executive Board bears the responsibility for ensuring that the principles, measures, and requirements defined in this statement are implemented within the respective areas of its own business activities. This includes the identification, prevention, and mitigation of any potential negative impacts of business activities on human rights.
Scope	The policy statement covers MTU's own business activities (MTU Aero Engines AG and the companies controlled by the MTU Group). Both employees and non-employees fall within the scope of the policy.
Responsible organizational level	MTU's Executive Board is responsible for the implementation of the principles, measures and requirements defined in the statement within MTU's own operations. The compliance officer and the human rights officer regularly report to the Corporate Sustainability Board and the Executive Board, under the responsibility of the Chief Sustainability Officer.
Third-party standards or initiatives	/ Universal Declaration of Human Rights / Core Labor Standards of the International Labour Organization (ILO) / Ten Principles of the UN Global Compact / UN Guiding Principles on Business and Human Rights / Sustainable Development Goals of the United Nations (SDG 5/8)
Stakeholder consideration	The policy statement on the protection of human rights takes into account the interests of key stakeholders. It ensures fair treatment and safe working conditions for the whole workforce, promotes ethical practices, builds trust and maintains high standards of business conduct for investors and supervisory authorities.
Availability	The policy is publicly available on the MTU website: *https://www.mtu.de/fileadmin/EN/1_About_us/5_Compliance/Grundsatzerklaerung_Menschenrechte_V2_final_EN.pdf**

Corporate works agreement on Code of Conduct for employees

Content	MTU's internal Code of Conduct (also available to the public in an abridged version) emphasizes the importance of integrity and responsibility across all business areas. Employees are obliged to comply with legal requirements and internal rules while adhering to ethical standards of conduct. In addition, the Code of Conduct highlights the importance of respectful and fair interactions among colleagues, with business partners and customers. The Code also describes MTU's commitment to human rights, equal opportunities, safe working conditions and environmental sustainability and it also covers fair competition, trade compliance, prevention of insider trading, and outlines enforcement measures and consequences for violations.
Target	The main objective of the Code of Conduct is to establish clear policies and standards for ethical behavior and decision-making for MTU's workforce. It is designed to ensure consistency, integrity and compliance with laws and regulations. At the same time, the Code of Conduct aims to foster a positive work environment, protect MTU's reputation, and build trust with stakeholders.
Associated material impacts, risks and opportunities	MTU's Code of Conduct reflects the value the company places on respect for human rights and promotes a respectful and fair working environment. The Code emphasizes the importance of equal treatment by rejecting discrimination in any form and promoting equal opportunities for all employees. In addition, fair and performance-based compensation is offered that is in line with or better than national legal standards and collective bargaining agreements. Overall, the Code of Conduct serves to prevent potential negative impacts on employees and create a positive working environment.
Monitoring	It is the responsibility of every MTU manager to ensure that all employees are aware of this policy and comply with its provisions. MTU regularly trains its employees and managers across all hierarchies on the Code of Conduct. When new employees are taken on, MTU informs them about the Code of Conduct and requires them to sign a declaration committing to uphold it. The Code of Conduct is subject to oversight by the Works Council.
Scope	The corporate works agreement applies to all employees of the following MTU Group companies: / MTU Aero Engines AG (Munich) / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH / eMoSys GmbH
Responsible organizational level	MTU's Executive Board is responsible for implementing the Code of Conduct. As part of compliance-related regular reporting, the compliance officer regularly reports to the Executive Board on adherence to the Code.
Availability	The policy is accessible to MTU employees via the document management system and can be viewed publicly in an abridged version: https://www.mtu.de/fileadmin/EN/7_News_Media/2_Media/Brochures/Company/MTU_Verhaltensgrundsaetze_en_2604_150.pdf*

Manual for the implementation of human rights risk management at MTU (including corresponding environmental obligations)

Content	The policy describes the actions and responsibilities that MTU has implemented to prevent, as far as possible, the violation of human rights and corresponding labor and environmental obligations along its upstream value chain and as part of its own business activities.
Target	The policy is fundamentally designed to fulfill the requirements arising from the German Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz, LkSG) and thereby reduce or prevent human rights and environmental risks and violations resulting from the business activities of MTU.
Associated material impacts, risks and opportunities	As all material sustainability matters relating to MTU's own workforce (with the exception of work-life balance) are anchored in the ILO conventions and the Universal Declaration of Human Rights, which MTU has committed to upholding in its policy statement on the protection of human rights, to which the manual refers, the manual covers all material impacts and risks in the social area. A particular focus here is on freedom of association, equal treatment of employees, appropriate wages and occupational health and safety.
Monitoring	The approach described in this policy for fulfilling the human rights and environmental due diligence obligations under the German Supply Chain Due Diligence Act is reviewed annually and as needed, particularly when MTU expects a significantly changed or expanded risk situation within its own business operations or with its immediate suppliers. The review is generally carried out in consultation between the MRB (human rights officer) and the MRKK (human rights coordinators Group).
Scope	In the context of the ESRS-S1, the scope covers MTU's own workforce.
Responsible organizational level	The Legal, Compliance, Intellectual Property Management & Corporate Audit department is responsible for the policy. The responsibility ensures that the policy is monitored. All departments are responsible for implementing the policy.
Availability	The policy is not publicly available and can only be accessed via the document management system for MTU employees.

Management manual

Content	The management manual is the central document containing the requirements and rules pertaining to the integrated management system for quality, occupational health & safety and environmental protection. With regard to health and safety (H&S), the manual sets out the principles of the occupational health and safety management system, explains potential risks to workers' health and safety, emphasizes the importance of training to ensure occupational health and safety and describes the processes for root cause analysis of incidents. It forms the basis for more specific rules and regulations (policies, process descriptions, standards and work instructions) that apply to MTU. The management manual is the overarching document in the IMS for quality, environmental protection and occupational health and safety, and serves as the basis for further regulations (process descriptions, standards, and work instructions) across all business units of MTU. With regard to health and safety (H&S), the Manual sets out the principles of the occupational health and safety management system, explains potential risks to workers' health and safety, emphasizes the importance of training to ensure occupational health and safety and describes the processes for root cause analysis of incidents. It forms the basis for more specific regulations (policies, process descriptions, standards and work instructions) that apply to MTU.
Target	MTU considers it its responsibility to make a significant contribution towards helping its employees stay in good health in the long term. The aims are zero accidents and the mitigation of any workplace exposures in a work environment appropriate for this purpose. For this reason, company-wide health and safety management processes and activities have been introduced.
Associated material impacts, risks and opportunities	The management manual addresses the potential negative impacts and risks for the health and safety of MTU's own workforce.
Monitoring	The system is part of MTU's integrated management system (IMS) and its ISO 45001 certification for the following sites: MTU Aero Engines AG (Munich), MTU Maintenance Hannover GmbH, MTU Maintenance Berlin-Brandenburg GmbH, MTU Maintenance do Brasil Ltda, MTU Maintenance Australia Pty Ltd. and MTU Maintenance Service Centre Ayutthaya Ltd. It is supported by regular inspections, audits and an annual management review of the IMS. On the operational level, responsibilities for health and safety are assigned to the MTU sites.
Scope	For the MTU sites covered by the CSRD scope of consolidation, the IMS is valid at the following MTU sites: / MTU Aero Engines AG (Munich) / MTU Aero Engines Polska sp. z o. o. / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH / MTU Maintenance Canada Ltd. / MTU Maintenance Dallas Inc. / MTU Maintenance Serbia d.o.o.
Responsible organizational level	For the area of health and safety: The Executive Board and managers are responsible for the implementation of the policy.
Availability	The policy is not publicly available and can only be accessed via the document management system for MTU employees.

Responsibility in occupational health and safety and environmental protection

Content	This policy governs the assignment of tasks and responsibilities at MTU in the area of occupational health and safety and environmental protection at the Munich site (MTU Aero Engines AG). It provides an explanation of the roles of the management, appointed representatives and center coordinators.
Target	The overall aim of the policy is to promote a safe working environment by clearly defining the roles, responsibilities and procedures that are necessary to ensure compliance with the relevant health, safety and environmental regulations. The aim is also to support continuous improvement in these areas.
Associated material impacts, risks and opportunities	The policy aims to counteract negative impacts on the (physical and mental) health and the safety of MTU's workforce.
Monitoring	The center objectives in occupational health and safety are included in the annual target agreements between the centers, the site manager, and the department management, and are approved by them. The center objectives are cascaded down to individual departments and are aligned through annual target-setting and target achievement discussions. The policy is subject to oversight by the Works Council.
Scope	The policy applies to all employees at the MTU Aero Engines AG (Munich) site.
Responsible organizational level	The Executive Board and managers are responsible for the implementation of the policy.
Availability	The policy is not publicly available and can only be accessed via the document management system for MTU employees.

Documentation and reporting of accidents

Content	The policy includes definitions of safety and work accidents for internal statistics and reporting, the accident investigation and analysis process, reporting requirements, including frequency, content, handling and distribution of reports, and management responsibility for documenting and reporting accidents.
Target	The policy provides minimum requirements for the investigation procedure, documentation and reporting of accidents with the goal of determining root causes and implementing corrective actions to prevent recurrence of accidents.
Associated material impacts, risks and opportunities	With a clear focus on improving employees' physical and mental health, (occupational) safety and general working conditions, the policy aims to counteract these negative impacts. Targeted actions are in place to promote the well-being of employees and prevent accidents at work.
Monitoring	The system is part of MTU's integrated management system (IMS) and its ISO 45001 certification for the following sites: MTU Aero Engines AG (Munich), MTU Maintenance Hannover GmbH, MTU Maintenance Berlin-Brandenburg GmbH, MTU Maintenance do Brasil Ltda, MTU Maintenance Australia Pty. Ltd. and MTU Maintenance Service Centre Ayutthaya Ltd. It is supported by regular inspections and audits. On the operational level, responsibilities for health and safety are assigned for each MTU site. Quarterly reporting is communicated through local management. In addition, the report is distributed to top management as defined by the safety organization chart.
Scope	For the MTU sites covered by the CSRD scope of consolidation, the policy is valid at the following MTU sites: / MTU Aero Engines AG (Munich) / MTU Aero Engines Polska sp. z o. o. / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH / MTU Maintenance Canada Ltd. / MTU Maintenance Serbia d.o.o. / MTU Maintenance Lease Services B.V. / MTU Aero Engines North America Inc.
Responsible organizational level	The safety engineers or safety coordinators are responsible for the categorization, analysis, documentation and reporting of work accidents. The management on the sites is responsible for implementing corrective actions after work accidents.
Third-party standards or initiatives	DIN ISO 45001 10.2 Incident, nonconformity and corrective action
Availability	The policy is not publicly available and can only be accessed via the document management system for MTU employees.

Continuous training / corporate works agreement on training and development

Content	The policy describes the framework of the company's educational program for cross-center topics. The educational program includes both project- and center-specific qualification programs, as well as cross-center educational counseling for specific groups such as FLP (First Leadership Program). Associated with the program are processes for determining the company's qualification needs, as well as individual educational agreements in the qualification discussion for company-required and appropriate educational measures.
Target	The policy aims to support employees' personal and professional development through a structured qualification program, emphasizing their own responsibility for this process.
Associated material impacts, risks and opportunities	The policy supports the positive impacts of a comprehensive training program for all employees by supporting the employees' personal and professional development through a structured qualification program, thereby enhancing job performance and career advancement opportunities.
Monitoring	The policy is monitored by the HR department using an IT-supported platform for the education process. Regular updates and information are provided to the Works Council.
Scope	The corporate works agreement applies to all employees of the following MTU Group companies: / MTU Aero Engines AG (Munich) / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH
Responsible organizational level	The People & Organization Center is responsible for implementing the policy.
Availability	The policy is not publicly available and can only be accessed via the document management system for MTU employees.

Corporate works agreement on disease prevention and the integration of severely disabled individuals

Content	The corporate works agreement regulates preventive measures of the company's integration management for all employees, the integration of severely disabled individuals and those with equivalent status and supplementary provisions for both groups.
Target	The Group-wide works agreement aims to fulfill the legal prevention mandate of § 167 SGB IX. In the event of health impairments, MTU works proactively with the affected employees to find ways of overcoming incapacity for work, avoiding further incapacity for work and preserving their jobs. The aim is also to maintain and strengthen employability through workplace prevention and, if necessary, to find work that matches the skills profile of the person concerned.
Associated material impacts, risks and opportunities	The corporate works agreement aims to reduce negative impacts for people with disabilities, such as psychological risks and professional consequences, that can arise from discrimination, exclusion and bullying. This is to be achieved by maintaining and strengthening the employability of severely disabled people and creating a supportive framework for their integration.
Monitoring	A regular exchange between the HR departments, the inclusion officers and the locally responsible representatives for severely disabled employees and works councils takes place as required, but at least once a month. Violations can be reported via the official MTU compliance reporting channels and additionally via the German General Equal Treatment Act (AGG) and inclusion officers as well as the representatives for severely disabled employees at all German locations. In Munich and Hanover, MTU also employs Certified Disability Management Professionals (CDMP) to support affected employees.
Scope	The corporate works agreement applies to all employees of the following MTU Group companies: ⁄ MTU Aero Engines AG (Munich) ⁄ MTU Maintenance Berlin-Brandenburg GmbH ⁄ MTU Maintenance Hannover GmbH
Responsible organizational level	Local inclusion officers and representatives for severely disabled employees in each legal entity.
Availability	The policy is not publicly available and can only be accessed via the document management system for MTU employees.

Corporate works agreement on collaborative behavior in the workplace

Content	The policy includes a commitment to preventing bullying, sexual harassment, and discrimination, and to promoting and maintaining a collaborative working environment. According to the policy, every employee is obligated to contribute to maintaining a peaceful environment in the company and a positive work environment. This includes respecting the personal rights and dignity of each individual. The policy also explains and ensures every employee's right to file a complaint. If the harassed person is unable or unwilling to address the situation directly, they can involve a person of their trust. This can also apply to employees who have witnessed or observed the misconduct, even if they were not personally affected. Violations against the policy are met with sanctions.
Target	The overall goal of the corporate works agreement on collaborative behavior in the workplace is to create and sustain a workplace environment where all employees feel safe, respected, and valued. By preventing bullying, sexual harassment, and discrimination, and promoting a collaborative climate, the policy aims to ensure that every employee can work in a positive and supportive atmosphere where their personal rights and dignity are upheld. Through this commitment, the company seeks to enhance overall workplace harmony and productivity.
Associated material impacts, risks and opportunities	The policy takes account of potential negative impacts on the well-being of the workforce, which includes their physical, emotional and social equilibrium, by describing actions to promote a respectful and supportive working environment. It provides a clear framework for collaborative behavior and promotes a working environment that works against bullying, sexual harassment and discrimination.
Monitoring	Affected persons who feel that they have been neglected can contact the following bodies: direct managers, HR department, social management, health service and Works Council. The procedure for consultations and complaints is described in the process and stage program and includes reporting, problem, target and resource analysis followed by implementation and evaluation.
Scope	The corporate works agreement applies to all employees of the following MTU Group companies: ⁄ MTU Aero Engines AG (Munich) ⁄ MTU Maintenance Berlin-Brandenburg GmbH ⁄ MTU Maintenance Hannover GmbH
Responsible organizational level	The People & Organization Center is responsible for the implementation of the policy.
Availability	The policy is not publicly available and can only be accessed via the document management system for MTU employees.

Process for engaging with own workforce and workers' representatives about impacts (S1-2)

MTU takes the perspectives of the workforce into account by engaging in regular, open and trust-based dialogue between employee representatives and management, ensuring that the insights actively shape decisions and guide activities aimed at managing both the actual and potential impacts on MTU's workforce. MTU's German sites have works councils as well as a Group Works Council, which is responsible for Group-related matters, and executive representative committees. In Poland and Canada, workers' representatives advocate for the workforce in discussions with management. Additionally, employees' interests are safeguarded on the co-determined Supervisory Board, where seats are equally distributed.

Dialogue with employee representatives at Group level takes place during regular monthly meetings, e.g. as part of an ongoing exchange on specific topics.

MTU assesses the effectiveness of engagement with its workforce through regular employee surveys.

To gain insights into the perspectives of employees, especially individuals who may be particularly vulnerable to impacts, such as people with disabilities, migrants, and members of the LGBTQ+ community, MTU takes the following actions: MTU engages with legitimate representatives of vulnerable groups, such as elected representatives for severely disabled persons. Furthermore, MTU has dedicated inclusion officers who act as points of contact. In this way, MTU integrates the perspectives of vulnerable groups and creates important structures for inclusion. Furthermore, MTU supports employee resource groups (ERGs), which are self-organized networks and groups of employees dedicated to fostering a diverse and inclusive work environment. These networks enable employees to voice their concerns and encourage collaboration within the company. This approach allows MTU to integrate a wide range of experiences and perspectives from its own employees into the MTU decision-making processes. Examples of such groups include the Network of Engine Women (NEW), supported by CEO Lars Wagner, and the AeroPride queer network, established in 2023 with the backing of Dr. Silke Maurer, Chief Operating Officer.

Processes to remediate negative impacts and channels for own workforce to raise concerns (S1-3)

MTU has implemented a complaints procedure to effectively address potential material negative impacts on working conditions, equal opportunities and other work-related rights of the workforce. This mechanism provides MTU's workforce with a clearly defined reporting channel through which they can report concerns and potential violations confidentially and securely.

The reports received are carefully examined so that individual and targeted remedial action can be taken. This action may include adapting work practices, awareness training programs and structural changes. The effectiveness of the remedial action taken is regularly evaluated by the Group Compliance function and MTU's human rights officer as part of the human rights-related risk management system. Continuous monitoring and evaluation of the measures ensure not only that individual cases are resolved but also that systematic improvements are established in the work processes.

MTU offers its workforce a variety of channels through which they can raise concerns in person or anonymously, including by contacting the compliance organization directly or through the web-based whistleblower system (iTrust), which is available in several languages. It is also possible to submit a complaint anonymously. This system is available at all times to all MTU employees, non-employees and third parties and other stakeholders, such as suppliers and their workers.

In addition, mechanisms have been established to address complaints or grievances related to employee matters; these include points of contact for employees. For instance, in accordance with statutory regulations such as the German General Equal Treatment Act, each site has designated trained personnel to handle complaints regarding discrimination. At MTU Maintenance Canada, employees can file a complaint with the HR department in cases of discrimination and also have the right to raise the complaint to the British Columbia Human Rights Tribunal. At MTU Aero Engines Polska, an employee-elected individual fulfills the role of a contact point. Furthermore, employees can report grievances to managers, the Works Council, or the HR department.

MTU promotes knowledge about access to the channels in the workplace by publicly communicating the rules of procedure and information on the reporting channels.

The complaints raised and addressed are tracked and monitored by the compliance officer and overseen by the human rights officer (HRO), in order to maximize the effectiveness of the reporting channels. The compliance officer is responsible for the receipt confirmation of a complaint, follow-up in case more information is needed and the initiation or coordination of subsequent actions. In the event of violations, the compliance officer informs the human rights officer. The latter involves the Group human rights coordinators and site human rights coordinators as required when determining the action to be taken. The effectiveness of the complaints procedure is reviewed annually and on an ad hoc basis if MTU has reason to expect a significant change or deterioration in the risk situation within its own operations or at direct suppliers.

MTU assesses whether its workforce is aware of the complaints procedure and reporting channels and trust them as a way to raise their concerns or needs and have them addressed. This is ensured by communicating openly about the grievance mechanism and the rules of procedure, including to third parties, e.g. through information on the MTU website and the policy statement on the protection of human rights at MTU Aero Engines. The information is clear and formulated in an understandable manner (see *section Business conduct policies and corporate culture (G1-1)*), additionally, the complaints procedure states that MTU does not tolerate any form of retaliation against individuals utilizing these channels.

Taking action on material impacts on own workforce, and approaches to managing material risks and pursuing material opportunities related to own workforce, and effectiveness of those actions (S1-4)

MTU Aero Engines AG is committed to effectively manage its material impacts, risks, and opportunities related to its own workforce through targeted actions. The main initiatives center around:

/ Effective health and safety measures to ensure a secure working environment.

/ Employ and integrate people with disabilities to foster diversity and inclusion.

/ Effective complaint mechanisms and human rights risk management system.

/ Flexible working hours, mobile working, and more to promote work life balance.

/ Strengthen internal communication by an integrated feedback system.

/ Continuous investment in training and development opportunities to support employee development.

Health and safety:
To minimize the risk of injury or accidents during working hours and avoid negative impacts on its workforce, MTU is constantly improving health and safety measures and encouraging its workforce on MTU sites to report unsafe situations in order to improve constantly. Occupational health and safety (H&S) is part of MTU's integrated management system (IMS). Occupational health and safety processes are regularly reviewed and developed. The occupational health and safety management systems at MTU Aero Engines AG (Munich), MTU Maintenance Hannover GmbH, MTU Maintenance Berlin-Brandenburg GmbH, MTU Maintenance do Brasil Ltda., MTU Maintenance Australia Pty. Ltd. und MTU Maintenance Service Centre Ayutthaya Ltd. are externally certified to ISO 45001, ensuring compliance with international standards and enhancing safety culture. The safety culture should continue to improve as a result of planned actions, such as the introduction of safety briefings and training sessions on developing a safety mindset.

Employment and inclusion of persons with disabilities:
MTU has already implemented a variety of actions related to employment and inclusion of people with disabilities regarding e.g. accessibility, integration and support. Furthermore, ongoing and planned enhancements to the physical work environment will better accommodate the needs of people with disabilities. These actions are overseen by an inclusion officer in order to increase employee satisfaction and prevent discrimination.

Actions taken, to provide or enable remedy in relation to an actual material impact:

- Health and safety management:
  Due to MTU's regulatory environment, any impact that affects the health and safety of its workforce is considered an actual negative impact. To this end actual negative impacts can arise from the risk of injury or accidents during working hours. In order to provide remedy in case of an incident, MTU has a comprehensive occupational health & safety management system in place. This system includes the medical care required in the event of sudden health emergencies at the workplace. First-aiders are appointed and obligated to attend a refresher course every two years. Additional functions are fire safety assistants and safety officers.
- Training and development opportunities:
  Deficiencies in employee qualifications, whether through over- or under-demanding training, career and talent development programs, can have a negative impact on employees. In such cases, those affected can contact their responsible supervisors through various existing channels. MTU is constantly developing its feedback landscape to provide a variety of reporting channels. To remedy these negative impacts, MTU provides a comprehensive and needs-based training program that contributes to the targeted further development of employees.
- Actions to improve grievance mechanisms and respect for human rights among the company's own workforce:
  In the event of actual negative impacts, for example in connection with discrimination, MTU has a systematic process for handling complaints. This process makes it possible to take remedial action quickly and effectively to remedy such incidents and prevent them from occurring in the future.

Additional actions or initiatives in place with the primary purpose of delivering positive impacts:

- Actions to improve grievance mechanisms and respect for human rights among MTU's own workforce:
  MTU has implemented structured reporting processes to handle complaints of discrimination including confidential and anonymous reporting options through systems like iTrust. Site-specific channels and trained contacts should ensure that all complaints are addressed effectively and appropriately.
- MTU promotes work-life balance by offering various flexible work options, such as flexible hours, educational leave, mobile working, sabbaticals, etc. These initiatives cater to the diverse life phases and needs of employees, supporting a harmonious integration of work and personal life.
- Revised feedback landscape:
  One action that MTU has implemented is the transformation of the employee survey (Puls-Check) into an integrated feedback system with targeted surveys supplemented by additional tools such as management feedback and team feedback.
- Training and development opportunities:
  MTU attaches great importance to the development of its employees and invests systematically in training and developing their talents. The company offers extensive training programs in aviation and specialized fields (e.g., safety training), supported by an online learning portal for self-directed learning. This ensures employees have the resources to enhance their skills and advance their careers.

With the help of the various roles within MTU, including the Executive Board for strategic direction, department heads for implementation in their areas, and the HR department for employee development and training, these actions can be efficiently followed up. This is accomplished through internal and external audits, benchmarking, and stakeholder feedback to assess and ensure the success of these measures.

At MTU, necessary and appropriate actions in response to actual or potential negative impacts on the workforce are determined through e.g. a systematic risk assessment. Feedback is gathered regularly from employees to identify common issues and compare practices against legal requirements and industry standards in the aviation sector. By continuously monitoring and adjusting its strategies, MTU ensures that its actions remain effective and up to date, safeguarding the well-being of its workforce.

MTU has identified a risk due to the working conditions prevailing at MTU (e.g., due to insufficiently flexible working time models), which may result in increased staff turnover and higher recruitment and personnel costs. Policies and actions aimed at achieving a work-life balance make a significant contribution to mitigating this risk. MTU reviews the effectiveness of the models offered to make working hours more flexible, such as flexitime models, various part-time models and mobile working, by regularly evaluating acceptance rates as part of its HR processes.

MTU is committed to ensuring that its business practices do not cause or contribute to any material negative impacts on its workforce. By implementing a range of actions, including effective grievance mechanisms, a continuous monitoring and reporting system, and various other initiatives, MTU strives to maintain a positive and supportive environment for its employees. The company fosters continuous dialogue with stakeholders to proactively identify and address potential issues.

MTU provides significant resources, including specialized experts (e.g. HR sustainability manager, equal treatment officers, social counseling, etc.), financial investments (company doctor, occupational integration management, health management, MTU Study Foundation, etc.) and technological tools (e.g. e-learning platform for training in conflict management and diversity, equal opportunities and inclusion, among other things) in order to effectively manage MTU's material impacts. Stakeholder engagement and continuous improvement guided by international standards ensure the effectiveness and transparency of MTU's sustainability efforts.

Increased training in health and safety, investment in safer equipment, and improvement of behavior-based safety

Key actions taken and outcomes achieved	MTU has implemented a number of actions to improve health and safety in the workplace, including the "Safety Culture@MTU" project and themed action days (e.g. on occupational health and safety or handling hazardous substances). At its German sites, MTU provides occupational and emergency medicine and offers preventive programs on nutrition, exercise and physiotherapy. If illnesses or accidents occur, internal case managers support the reintegration process. A working group with safety officers continuously improves safety standards in order to achieve ongoing improvements in behavior-based safety and reducing unsafe situations.
Key actions planned and time horizons for implementation	MTU will continue the "Safety Culture@MTU" project until June 2027. MTU also plans to continue its ongoing information campaigns and action days for occupational health and safety in the next reporting period.
Contribution to the policy objectives and requirements	Management manual Responsibility in occupational health and safety and environmental protection / procedural instructions Documentation and reporting of accidents
Scope	This applies to all employees of the following MTU Group companies: / MTU Aero Engines AG (Munich) / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH / eMoSys GmbH
Progress	The progress of actions is monitored with the integrated management system. The actions taken to inform employees and raise their awareness, such as action days on hazardous substances or the Occupational Health and Safety Day, were very well received. The participation rate of safety officers at the working group meetings and the number of safety officers increased compared to the previous year. In the future, the focus will continue to be on behavior-related occupational safety, e.g. through the "Safety Culture@MTU" project.

The employment and inclusion of people with disabilities

Key actions taken and outcomes achieved	MTU has taken various actions at its German sites to promote inclusion and support for people with disabilities. This includes appointing inclusion officers, establishing counseling centers and the work of a committed health management team. A particular focus is on accessibility in new buildings and renovation projects, as well as in digital media, for example by providing subtitles. MTU attaches great importance to encouraging people with severe disabilities to apply and offers comprehensive support in this regard. The job advertisements are worded accordingly and applicants have the opportunity to include a representative for severely disabled persons in the application process. These representatives support the individuals concerned during the recruitment process and in their day-to-day work. Certified Disability Management Professionals (CDMP) are available in Munich and Hanover to support integration management for the affected employee. These actions have increased the number of applications by and appointments of people with severe disabilities and promoted openness to inclusion-related issues. All employees, including managers, continuously have their awareness of an inclusive corporate culture raised.
Key actions planned and time horizons for implementation	The actions implemented in the reporting year are to be continued on an ongoing basis until December 2026.
Contribution to the policy objectives and requirements	Corporate works agreement on disease prevention and the integration of severely disabled individuals.
Scope	This applies to all employees of the following MTU Group companies: ⁄ MTU Aero Engines AG (Munich) ⁄ MTU Maintenance Berlin-Brandenburg GmbH ⁄ MTU Maintenance Hannover GmbH ⁄ eMoSys GmbH
Progress	MTU has not yet reached the planned quota of severely disabled employees within its own workforce in Germany. The aim is to recruit more candidates in order to achieve the statutory quota of 5% severely disabled employees.

Improving complaint mechanisms and respecting human rights within MTU's own workforce

Key actions taken and outcomes achieved	MTU has taken actions to protect the human rights of its own employees and improve the grievance mechanism. These actions include the introduction of comprehensive risk management, which is led by a human rights officer and site-specific coordinators. In addition, reporting channels such as iTrust have been set up to enable employees to report complaints – for example, about discrimination – confidentially and anonymously. In addition, MTU offers training and awareness programs for all employees to inform them about the Code of Conduct, anti-discrimination policies and human rights. In addition, MTU's intranet is used to regularly provide employees with updates and important information.
Key actions planned and time horizons for implementation	The actions implemented in the reporting year will be continued on an ongoing basis.
Contribution to the policy objectives and requirements	These actions are based on the corporate works agreement, the Code of Conduct and the policy statement on the protection of human rights. The focus here is on respect for human rights, ensuring equal opportunities, and preventing discrimination.
Scope	The actions apply to all MTU Aero Engines AG sites.

Promoting work-life balance within own workforce

Key actions taken and outcomes achieved	MTU has implemented measures to promote its employees' work-life balance. These include flexible working time models, flextime accounts, part-time and job-sharing options, hybrid working and support for families with childcare and care services. The company also offers sabbaticals, educational leave, time off for personal reasons, parental leave and partial retirement. Taking these actions has created a working environment that enables employees to balance their professional obligations with their private lives.
Key actions planned and time horizons for implementation	MTU plans to continuously improve work-life balance and take a range of additional actions, such as the ongoing development of flexible working time arrangements.
Contribution to the policy objectives and requirements	Implementation without specific policies.
Scope	This applies to all employees of the following MTU Group companies: / MTU Aero Engines AG (Munich) / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH / eMoSys GmbH

Revised feedback landscape within own workforce

Key actions taken and outcomes achieved	MTU has taken a range of actions to improve the feedback landscape. These include the introduction of an integrated feedback system and regular surveys to record employee satisfaction and evaluate the corporate strategy. A key component of this system is the PulsCheck, which continuously gauges employee sentiment regarding satisfaction and commitment. MTU has also implemented 180-degree feedback for all team and management levels with the aim of improving cooperation.
Key actions planned and time horizons for implementation	MTU plans to continue the PulsCheck and 180-degree management feedback on an ongoing basis.
Contribution to the policy objectives and requirements	The feedback landscape as a whole and each individual survey make a continuous and well-founded contribution to successful leadership and collaboration and thus to the company's success.
Scope	This applies to all employees of the following MTU Group companies: / MTU Aero Engines AG (Munich) / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH / eMoSys GmbH

Training and development opportunities

Key actions taken and outcomes achieved	MTU has implemented a number of actions to promote the development opportunities of its employees, including transition coaching for managers and program development, the use of the Gallup Strengths Finder to assess the potential of high potentials, and the creation of an HR Instrument Map to harmonize existing activities and identify requirements for future talent and management development. There is also a comprehensive training program that is updated on an ongoing basis and the offer of a mentoring program to ensure the continuous professional development of employees. These actions contribute to the ongoing qualification of MTU's employees.
Key actions planned and time horizons for implementation	MTU plans to continue developing its training programs in Germany in line with business requirements. In addition, employees are supported through targeted training measures in order to continuously promote further development.
Contribution to the policy objectives and requirements	Actions relating to the topic of training and development support the implementation of the ESG STI "training days per employee" corporate target.
Scope	This applies to all employees of the following MTU Group companies: / MTU Aero Engines AG (Munich) / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH / eMoSys GmbH

Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities (S1-5)

In line with MTU's strategy, relevant targets are defined, and performance criteria are derived and discussed with the Executive Board. The performance criteria are also discussed in the co-determined Supervisory Board.

Regular meetings and feedback/review sessions enable MTU to track progress, identify obstacles, and make necessary adjustments. The Corporate Sustainability Board discusses the progress of sustainability management topics every two months. This committee recommends targets that are decided by the Executive Board and (where relevant for Executive Board remuneration) also by the Supervisory Board. Employee engagement includes the annual PulsCheck, the results of which are presented to the Executive Board. The procedure and questions for the PulsCheck are discussed and agreed with the Works Council. MTU places great emphasis on learning and continuous improvement in its target-setting and performance tracking.

The following strategic directions can be derived from MTU's management process:

- Ensuring compliance with human rights at the company's own sites
- Ensuring a high level of health and safety in the workplace
- Promoting diversity and equal opportunities
- Providing active and targeted employee development
- Ensuring a high level of employee satisfaction and of employer attractiveness
- Enabling a healthy work-life balance for all employees

Within the framework of the sustainability statement for fiscal year 2024, MTU is focusing on the following three targets, which were defined in accordance with the minimum requirements of ESRS in order to address material impacts, risks and opportunities in connection with its own workforce:

Employee training and development (ESG STI): The short-term incentive (STI) focuses on education and training days to ensure the continuous development and qualification of employees. The aim is to increase participation in training courses in order to upskill employees and foster a culture of continuous learning.

Women in leadership positions (ESG LTI): MTU is committed to increasing the proportion of women in leadership positions. This long-term incentive (LTI) is aimed at enhancing gender diversity within the leadership team, fostering an inclusive and diverse corporate culture. The LTI target looks at the proportion of female managers from foremen to Executive Board level.

Women in senior management positions: The aim is to significantly increase the proportion of women in senior management positions at MTU. This goal will be pursued by setting specific quotas for female representation and actively promoting women into leadership positions. The first management level (center level, senior manager) and second management level (department level, manager) below the Executive Board are regarded as top management positions.

Employee training and development (ESG short-term incentive)

Relationship to policy objectives	The goal of continuous further education and training for MTU's own employees is based on the requirements of the corporate works agreement.
Objectives and period	MTU's target is an average of 3.0 training days per employee in the period from January 1 to December 6, 2024.
Scope	This applies to all employees of the following MTU Group companies: / MTU Aero Engines AG (Munich) / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH
Base year and value	The targets are set and progress is measured in absolute values for the reporting period without reference to previous years.
Methodologies and assumptions	The target includes all completed trainings at German sites from January 1 to December 6, 2024 stated in days per employee pursuant to data taken from the SAP portal. The target was set without direct involvement of stakeholders.
Changes in targets and corresponding metrics	The target for 2024 (3.0 training days) was increased compared to the previous year (2.5 training days).
Target achievement	For the reporting year 2024, the ESG STI KPI was an average of 3.38 training days per employee.

Women in leadership positions (ESG long-term incentive)

Relationship to policy objectives	The target for women in leadership positions is based on the policy statement on the protection of human rights at MTU in order to promote non-discrimination, equal opportunities, training and qualification of women and gender diversity.
Objectives and period	MTU's target is for women to hold 16% of leadership positions in fiscal years 2024 to 2027.
Scope	This applies to all employees of the following MTU Group companies: / MTU Aero Engines AG (Munich) / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH
Base year and value	The target was set for the first time in 2024. The measurement of progress therefore relates to the reporting year.
Methodologies and assumptions	The target represents the relative proportion of women in leadership positions across all management levels by (as of December 31). The target was set without direct involvement of stakeholders.
Changes in targets and corresponding metrics	The targets, which were set for the first time in the reporting year, were not adjusted.
Target achievement	For the reporting year 2024, the ESG LTI KPI came to 15.78% of leadership positions filled by women.

Women in senior management positions (FüPoGII)

Relationship to policy objectives	The target for women in senior management positions is based on the policy statement on the protection of human rights in order to promote gender diversity, non-discrimination, equal opportunities, and the training and qualification of women at MTU.
Objectives and period	In the 2022 fiscal year, new targets were set for the top two management levels in accordance with Germany's Second Act on Equal Participation of Men and Women in Management Positions (FüPoG II). The target for the second management level was increased in the reporting year 2024: / 15% / 3 women in the first management level below the Executive Board / 22% / 26 women in the second management level The deadline for achieving the targets is December 31, 2027.
Scope	This applies to all employees of the following MTU Group companies: / MTU Aero Engines AG (Munich) / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH
Base year and value	The new target was set in 2022 in accordance with the requirements of FüPoG II and the target for the second management level was updated in 2024.
Methodologies and assumptions	The target represents the relative proportion and absolute number (in accordance with legal requirements) of women in management positions at the first and second level below the Executive Board. The measurement of progress relates to the 2024 reporting year and is based on the reporting date of December 31. The target was set without the direct involvement of stakeholders.
Changes in targets and corresponding metrics	Due to the positive development in target achievement, MTU adjusted the target for the second management level from 20% to 22% in the course of 2024.
Target achievement	For the reporting year 2024, a share of 8.7% of women was achieved for the first management level and a share of 15.5% for the second level.

Characteristics of the undertaking's employees (S1-6)

The figures presented in the following tables on employees at MTU meet the requirements of ESRS S1-6 and include both permanent and temporary employees. Permanent employees comprise both blue- and white-collar workers with a permanent contract (full-time or part-time in accordance with national law or practice). They also include managers (apart from members of the Executive Board) as well as employees on maternity leave, and those with long-term illnesses or in temporary part-time employment due to parental leave.

Temporary employees have a limited/fixed-term contract, full-time or part-time according to national law or practice. At MTU these include temporary blue- and white-collar workers as well as substitute contracts (e.g. for permanent employees on maternity leave or with long-term illnesses). Temporary employees contribute to the flexibility of MTU's labor capacities in a volatile market environment, supporting MTU's ability to deliver in time-limited projects, during peak workloads in production and coping with fluctuations.

It is of note that employees in vocational training, interns, working students and doctoral candidates are not considered employees in the context of ESRS S1-6.

Beyond this, MTU does not have any employment relationships with non-guaranteed hours employees (e.g. workers who are not guaranteed a minimum or fixed number of working hours). All data relates to the headcount at the end of the reporting period.

Further information on the number of employees at MTU, broken down by national and international locations, can be found in the *Group structure, locations and organization section under The MTU Group in the combined management report.*

Total workforce by number of employees and breakdown down by gender

Category	Headcount
Total number of employees	**11,953**
Male	9,900
Female	2,053
Other	0
Not reported	0

The following table shows the total number of employees by gender and country for countries where MTU employs 50 or more employees and the sum of those represents at least 10% of the total number of employees (significant employment).

Number of MTU employees in countries with significant employment

Country	Headcount
Germany	9,241
Poland	1,299

Number of MTU employees by employment relationship and breakdown by gender

Category	Permanent employees	Temporary employees	Non-guaranteed hours employees
Total number of employees	**11,330**	**623**	**0**
Male	9,399	501	0
Female	1,931	122	0
Other	0	0	0
Not reported	0	0	0

MTU's employer attractiveness is reflected in the employee turnover rate and the total number of departing employees in 2024. The turnover rate is calculated by dividing the number of employees who have left MTU by the total number of employees at the end of the fiscal year. Reasons for leaving include resignations by employees or dismissals by the employer, mutually agreed resignations and natural turnover (e.g. due to retirement).

Employee turnover

Turnover rate (%)	4%
Total number of employees who have left (headcount)	497

Collective bargaining coverage and social dialogue (S1-8)

MTU recognizes the right of all employees to form workers' representatives. The corporate culture at MTU with regard to workers' representation is characterized by a trusting and constructive dialogue with the respective representatives. Even in contentious discussions, the goal remains to maintain a viable collaboration for the benefit of the company and the employees. Employees are neither favored nor disadvantaged based on their membership or non-membership in a union or workers' representative by the company.

78.5% of MTU employees at locations in countries in the European Economic Area (EEA) are covered by collective agreements. MTU has three collective bargaining agreements in the EEA.

Regular exchanges between the MTU Works Council and corporate management ensure effective representation of employees. At sites in the European Economic Area, 99.7% of MTU employees have workers' representatives.

The following table shows the coverage rates for collective bargaining agreements and workers' representatives for countries with significant employment.

Collective bargaining coverage and social dialogue

Coverage rate	**Collective bargaining coverage** Employees – EEA for countries with significant employment >50 employees and representing >10% of all employees	**Social dialogue** Workplace representation – EEA for countries with significant employment >50 employees and representing >10% of all employees
0 – 19%	Poland	
20 – 39%		
40 – 59%		
60 – 79%		
80 – 100%	Germany	Germany, Poland

MTU does not currently have an agreement with its employees for representation by a European Works Council (EWC), a Societas Europaea (SE) Works Council, or a Societas Cooperativa Europaea (SCE) Works Council.

MTU is making use of the phase-in option to omit the datapoints with regard to its own employees in non-EEA countries in the Disclosure Requirement ESRS S1-8 for the fiscal year 2024 sustainability statement (first year of preparation).

Diversity metrics (S1-9)

Gender distribution at top management level

Category	Headcount	in %
Total number of employees (top management levels)	**170**	**–**
Male	144	85%
Female	26	15%
Other	0	0%
Not reported	0	0%

Distribution of employees by age group

Category	Headcount	in %
Total number of employees	**11,953**	**–**
Employees under 30	2,055	17%
Employees between 30 and 50	6,935	58%
Employees over 50	2,963	25%

Adequate wages (S1-10)

All MTU employees in EEA countries are paid an adequate wage in comparison to European minimum wage directives. All MTU employees in non-EEA countries receive an adequate wage in line with the applicable national minimum wage or living wage benchmark.

Health and safety metrics (S1-14)

MTU is committed to maintaining a robust health and safety management system to ensure the well-being of its workforce. This is in line with its social responsibility and is expressed in strict occupational safety standards, health management, and a preventive approach. This requirement is implemented by the following management systems: the Integrated Management System (IMS) and the occupational health and safety management system according to ISO 45001 for the following sites: MTU Aero Engines AG (Munich), MTU Maintenance Hannover GmbH, MTU Maintenance Berlin-Brandenburg GmbH, MTU Maintenance do Brasil Ltda., MTU Maintenance Australia Pty. Ltd. and MTU Maintenance Service Centre Ayutthaya Ltd. MTU discloses the extent to which all MTU employees are covered by the health and safety management system, which corresponds to the Integrated Management System of MTU Aero Engines or ISO 45001 (management manual, see policy description under *Policies related to own workforce (S1-1)*). 97% of MTU employees are covered by these systems.

Health and safety metrics

Category	
Health and safety management system coverage ratio	97%
Number of fatalities – employees	0
Number of fatalities – value chain workers at MTU sites	0
Number of work-related accidents	64
Rate of recordable work-related accidents	3.3

MTU is making use of the phase-in option to omit all datapoints related to non-employees and the datapoints on cases of work-related ill-health and on number of days lost to injuries, accidents, fatalities, and work-related ill-health in the Disclosure Requirement ESRS S1-14 for the fiscal year 2024 sustainability statement (first year of preparation).

Remuneration metrics (pay gap and total remuneration) (S1-16)

Equal opportunity is reflected in the compensation system, which is designed non-discriminatory and independently of gender and gender identity, and aiming for gender equitable pay. For calculating the gender pay gap, the gross annual remuneration and the gross hourly wage extrapolated from this are taken into account. The (unadjusted) gender pay gap is calculated at Group level and is based on the following formula:

$$\frac{\text{(Average gross hourly wage of male employees – Average gross hourly wage of female employees)}}{\text{Average gross hourly wage of male employees}} \times 100$$

The MTU gender pay gap is reported on for the first time in the sustainability statement 2024.

Gender pay gap

Gender pay gap	2%

In addition to its commitment to equal pay, MTU is also committed to fair remuneration and providing transparent information. In terms of fair remuneration, MTU discloses the ratio of the annual total remuneration of the highest paid individual to the median annual total remuneration of all employees. Members of the Executive Board, including the highest-paid individual, are not taken into account in the median remuneration. The calculation of the MTU annual total remuneration ratio is based on the gross amount subject to wage tax for employees and the highest paid individual. At MTU, the CEO is regarded as the highest paid individual. Further information on management remuneration can be found in the Management compensation report section of the annual report.

Ratio of the median of the total annual remuneration of all employees to the total annual remuneration of the highest-paid individual

Total remuneration ratio	1:41

Incidents, complaints, and severe human rights impacts (S1-17)

As part of its commitment to transparency and accountability, MTU aims to provide a clear picture of complaints, work-related incidents and severe human rights incidents affecting its workforce. Eleven incidents of discrimination were registered during the reporting period. The reported cases involved cases of sexual harassment and racism. All confirmed cases resulted in consequences under labor law. Furthermore, MTU received five complaints through internal grievance mechanisms, separate from the incidents reported above.

Incidents, complaints and penalties

Number of reported incidents of discrimination, incl. harassment	11
of which confirmed cases of discrimination, incl. harassment	6
Number of complaints filed through reporting channels for own workforce	5
Amount of fines, penalties and compensation	€0

Severe incidents and penalties related to human rights

Number of severe human rights incidents reported	0
Amount of fines, penalties and compensation for severe human-rights incidents	€0

Workers in the value chain (S2)

Material impacts, risks and opportunities and their interaction with strategy and business model (S2-SBM-3)

In the assessment of the materiality of topics in the upstream value chain, the focus was primarily on production materials. This covers the entire process, starting with workers in mines, through processing in smelters and in the casting and forging processes, to the further processing of the products. The quality and availability of data in the upstream value chain varies considerably, which is partly due to a lack of transparency in the higher tiers of the upstream value chain. The materiality assessment also took into account other workers in the value chain, such as those working for customers. However, no material impacts, opportunities or risks outside the upstream value chain were identified, which is why the further disclosures focus on workers in the upstream value chain.

Given the nature of the material impacts, there are various particularly vulnerable groups that could be affected, such as women, people with disabilities, and children. However, MTU could not identify any impacts that specifically concentrate on one of these groups. MTU does not yet have processes in place for the detailed analysis of vulnerable groups in the upstream value chain.

As described under *Interests and views of stakeholders (SBM-2)*, MTU only has a limited choice of potential suppliers for production materials due to the quality requirements and expertise needed. Due to the limited flexibility in the selection of suppliers, there may be potential negative impacts associated with the business model. MTU is aware of its responsibility and sets out clear requirements for its direct suppliers regarding human rights and social standards. These should be cascaded up to the higher tiers of the upstream value chain (for more information, see *Policies related to value chain workers (S2-1)*).

The majority of MTU's direct suppliers are based in Europe and the United States, with only a small proportion based in other regions. For the higher tiers of the upstream value chain, however, there is a lack of transparency with regard to geographical areas.

For direct suppliers, the risk of potential negative impacts regarding child labor and forced labor is classified as non-material due to the required qualifications of the workforce and the countries of origin. In the higher tiers of the upstream value chain, there is a general risk of child labor and forced labor in the extraction of raw materials in the mines. However, as the raw materials can come from different regions with different legal requirements concerning child labor and forced labor, lack of transparency means that it is not possible to conclusively assess the risk.

In the materiality assessment, a distinction was made between direct (tier 1) and indirect suppliers (tiers 2 to n). This is due partly to gaps in the data and lack of transparency, but also partly to the different levels of power to exert influence.

In the materiality assessment process, specific impacts, opportunities and risks related to the workers were taken into account based on the processing steps in the value chain. This included an assessment of whether the production step poses a particular risk of negative impacts on human rights and/or working conditions. For example, forging and casting were classified as physically demanding jobs with a high potential for injury.

For the direct suppliers, potential negative impacts on local workers were identified in relation to working conditions, equal opportunities and equal treatment. The impacts associated with fair pay and working hours are considered to be rather minor due to the countries of production, although no in-depth information is currently available on this.

Due to the production processes, it can be assumed that there is a high proportion of men. Integration of people with disabilities is not possible in all areas of the companies. Since no in-depth information is available here either, the topics have been assessed as material in order to emphasize their importance.

Furthermore, based on the transparency achieved in the reporting year, the topics of working conditions, equal opportunities and equal treatment were also identified as material for the higher tiers of the upstream value chain. Since most of the indirect suppliers lack transparency, no conclusions based on the countries of production can be drawn. Given the activities in the higher tiers of the upstream value chain, it can be assumed that hard work, long working hours and unfair pay are prevalent until further information can be collected.

In the coming years, it will be necessary to further develop data quality and availability in order to be able to make more detailed, better quality statements about the upstream value chain. Due to the transparency achieved in the reporting year, potential negative impacts as a result of discrimination are to be assumed, in particular on the basis of origin, sex and ethnicity.

When the risk analysis was carried out (see *Taking action on material impacts on value chain workers, and approaches to managing material risks and pursuing material opportunities related to value chain workers, and effectiveness of those actions (S2-4)*), no material impacts were identified as a result of individual incidents or specific business relationships. The material impacts identified are based on aggregated statements from the risk management process or scientific articles and are therefore to be classified as widespread or systemic.

No material opportunities, risks or positive impacts were identified.

Policies related to value chain workers (S2-1)

MTU has implemented a policy statement on the protection of human rights that defines basic principles on human rights and working conditions as well as responsibilities for their protection (see *Policies related to own workforce (S1-1)*). MTU has committed itself to the principles of the UN Global Compact and regards the protection of human rights as an essential component of its sustainable corporate governance and part of its social, environmental and corporate responsibility. The commitments include compliance with the following standards:

- United Nations Universal Declaration of Human Rights
- Core Labor Standards of the International Labour Organization (ILO)
- 10 Principles of the UN Global Compact
- UN Guiding Principles on Business and Human Rights and the UN Declaration on Human Rights
- UN Sustainable Development Goals (SDG 5/8)

Building on the policy statement, MTU has developed a specific Supplier Code of Conduct that addresses topics including human trafficking, forced labor and child labor. Those topics are also included in the risk assessment with focus on social topics.

To meet the requirements of the German Supply Chain Due Diligence Act (LkSG), MTU has developed a strategy to consider human rights issues in the upstream value chain, with a focus on Tier 1 suppliers. To comply with the due diligence demands, the following policies are a central component of the MTU procurement organizations:

- Supplier Code of Conduct
- Terms and conditions of purchase
- Manual for the implementation of human rights risk management

MTU confirms that the policies for workers in the upstream value chain explicitly address topics such as working hours, adequate wages, freedom of association, the existence of works councils and collective bargaining, including the percentage of employees covered by collective bargaining agreements, as well as health and safety, gender equality and equal pay for work of equal value, employment and integration of people with disabilities, measures to prevent violence and harassment at work, diversity and data privacy. Particular focus is placed on Tier 1 suppliers in this context.

For detailed information on the content, goal, scope, responsibilities and availability of the individual policies for stakeholders, see the tables below.

In the event of human rights violations or other breaches of MTU's social standards within the upstream value chain, affected parties have the option of using the MTU complaints mechanism (see *Business conduct (G1)* for more information on the MTU reporting channels and the policies set out in the rules of procedure for complaints and whistleblowing and the corporate works agreement on the protection of whistleblowers). If MTU becomes aware of incidents via the established communication channels or other sources of information, an investigation is initiated, and in case of confirmed human rights violations remedial action is taken. For those cases, MTU does not have standardized measures because its intent is to solve the problems in the interest of the injured party. Further information on remediation can be found under *Processes to remediate negative impacts and channels for value chain workers to raise concerns (S2-3)*, while actions to prevent and mitigate the risk of human rights violations are described under *Taking action on material impacts on value chain workers, and approaches to managing material risks and pursuing material opportunities related to value chain workers, and effectiveness of those actions (S2-4)*.

In addition to the reference to MTU's own complaints channel, the Supplier Code of Conduct also requires suppliers to implement a grievance mechanism which, in addition to ensuring the anonymity of the affected party, also excludes discrimination or other negative effects as a result of reports.

MTU falls under the scope of the Corporate Sustainability Due Diligence Directive (CSDDD). In order to implement the requirements of this EU directive, MTU plans to expand the scope of corporate due diligence obligations with regard to human rights, with a particular focus on the higher tiers of the upstream value chain.

In 2024, MTU was not informed of any cases of non-respect of the UN Guiding Principles on Business and Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work or the OECD Guidelines for Multinational Enterprises that involve value chain workers reported in its upstream and downstream value chain.

Supplier Code of Conduct	
Content	The Supplier Code of Conduct of MTU Aero Engines AG sets out its expectations of the upstream value chain and covers a broad range of requirements in the areas of human rights, working conditions and employee rights, the environment and integrity in business conduct. This includes topics such as the prohibition of child labor, slavery, human trafficking, forced and compulsory labor, compliance with labor standards (freedom of association, the right to collective bargaining, prohibition of discrimination, equal pay, and compliance with a minimum wage), occupational health and safety, the creation of a grievance mechanism, the reduction of greenhouse gas emissions, energy efficiency, the use of renewable energy, resource-conserving measures, chemical management, and governance matters such as corruption and bribery, money laundering, terrorism financing, fair competition, antitrust laws, and the avoidance of conflicts of interest. The inclusion of these topics means the Supplier Code of Conduct is in line with the E1, S2, and G1 ESRS standards.
Target	The Supplier Code of Conduct outlines MTU's requirements regarding human rights, labor rights and conditions, environmental protection, and integrity in business conduct. It forms an essential basis for cooperation between MTU and its upstream value chain and has been integrated as a contractual component.
Associated material impacts, risks and opportunities	The policy covers all material impacts at direct suppliers and, with regard to the topics in the impacts, risks and opportunities identified, is intended to affect the higher upstream value chain by way of transfer by the direct suppliers.
Monitoring	Compliance with the required standards is monitored by an ESG assessment carried out by an external service provider. Violations of the principles can be reported at any time through the iTrust reporting channel. In addition, compliance is monitored through regular on-site visits by MTU employees to suppliers of OEM production materials.
Scope	The Supplier Code of Conduct is a contractual component of cooperation with direct suppliers and is intended to have a cascading effect on the higher tiers of the upstream value chain. The scope covers all regions and activities of these suppliers.
Responsible organizational level	Responsibility is held by the management of the respective purchasing department; if necessary in collaboration with the human rights officer or the compliance officer.
Third-party standards or initiatives	/ UN Global Compact, derived from the Universal Declaration of Human Rights / International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work / Rio Declaration on Environment and Development / United Nations Convention against Corruption / UN Guiding Principles on Business and Human Rights (UNGPs)
Availability	The policy is publicly available on the MTU website: *https://www.mtu.de/fileadmin/EN/7_News_Media/2_Media/Brochures/Company/06_Code_of_Conduct_Lieferanten_EN.pdf**

Terms and conditions of purchase (TCP)

Content	In addition to compliance with the Code of Conduct and provisions on data privacy, the TCP also include requirements for suppliers regarding conflict minerals. This includes, in particular, ensuring that potential conflict minerals come from responsible smelters/suppliers. In addition, the policy addresses a large number of other topics that relate to MTU's cooperation with suppliers but are not relevant to this report.
Target	The terms and conditions of purchase are the basis for clarifying fundamental issues relating to orders. They set out the contractual conditions between MTU and its suppliers and support MTU in safeguarding fundamental interests and placing requirements on the supplier, especially in the case of one-off procurement transactions.
Associated material impacts, risks and opportunities	The concept covers all material impacts at direct suppliers as well as the identified material impact on human rights in the higher upstream value chain through the required cascading effect in the Supplier Code of Conduct.
Monitoring	Contractual assurance by the supplier.
Scope	The terms and conditions of purchase regulate fundamental topics for all purchasing processes and are used for every order. The scope covers all regions and activities of direct suppliers.
Responsible organizational level	Responsibility is held by the management of the respective purchasing department.
Third-party standards or initiatives	/ UN Global Compact, derived from the Universal Declaration of Human Rights / International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work / Rio Declaration on Environment and Development / United Nations Convention against Corruption / UN Guiding Principles on Business and Human Rights (UNGPs)
Availability	The policy is publicly available on the MTU website: *https://www.mtu.de/fileadmin/EN/9_Privacy-Statement_Terms-Conditions/AGB-EN/Terms_and_Conditions_of_Purchase_of_German_MTU_Sites_-_No_Russia_10.12.2024.pdf**

Manual for the implementation of human rights risk management at MTU (including corresponding environmental obligations)

Content	The policy describes the actions and responsibilities that MTU has put in place to identify potential and actual human rights violations, define and implement preventive and remedial actions and ensure internal and external communication of the results.
Target	The policy is designed to meet the requirements of the German Supply Chain Due Diligence Act (LkSG). The aim of this policy is to reduce or prevent human rights- or environment-related risks and violations arising from MTU's business activities along the upstream value chain. The policy also describes actions and responsibilities to promote more sustainable business activities.
Associated material impacts, risks and opportunities	All material impacts at direct suppliers are covered.
Monitoring	The approach described in this policy for fulfilling the human rights and environmental due diligence obligations under the LkSG is reviewed annually and as needed. This applies in particular if MTU expects a significantly changed or expanded risk situation along the upstream value chain. The review is generally carried out in consultation between the HRO (human rights officer) and the MRKK (human rights coordinators Group).
Scope	The scope of this policy covers MTU Aero Engines AG and the controlled companies of the MTU Group with regard to the requirements of the LkSG along the upstream value chain and the company's own business operations.
Responsible organizational level	The Legal, Compliance, Intellectual Property Management & Corporate Audit department is responsible for the policy. The responsibility ensures the monitoring and implementation of the policy.
Availability	The policy is not publicly available and can only be accessed via the document management system for MTU employees.

Processes for engaging with value chain workers about impacts (S2-2)

As part of the International Aerospace Environmental Group, MTU gains insights into the key findings of the IAEG Sustainability Assessment Program, which focuses on risks in the upstream value chain. Even though MTU is not an active partner within this program, the insights gained are relevant for identifying areas for improvement within the aerospace industry, defining potential mitigation measures as part of the initiative, and measuring the effect through a reassessment. These insights are incorporated into, for example, the materiality assessment.

The knowledge gained from this program is shared twice a year by IAEG with its members within the framework of an IAEG working group dealing with sustainability in the upstream value chain.

Participation in the working group takes place at subject matter level for sustainability in the upstream value chain, with responsibility for integrating the findings lying with the purchasing management team.

Further information on stakeholder dialogue, including with actors in the upstream and downstream value chain, outside the specific requirements of ESRS S2, can be found under *Interests and views of stakeholders (SBM-2)*.

Processes to remediate negative impacts and channels for value chain workers to raise concerns (S2-3)

MTU has implemented a complaints procedure to effectively address potential material negative impacts on working conditions, equal opportunities and other work-related rights of workers in the value chain. This procedure provides workers with a clearly defined reporting channel through which they can report concerns and potential violations confidentially and securely.

The reports received are carefully examined so that individual and targeted remedial actions can be taken. Appropriate actions would be defined and implemented as part of an overall assessment of all the circumstances of the individual case. The actions can range from clarifying communication through the use of contractually agreed rights to the termination of the contractual relationship. The implementation of the actions at the supplier would be followed up by MTU employees.

MTU provides its workforce with the opportunity to report their concerns directly to the company and to have them addressed through various channels, including reports to the compliance officer by email or post, as well as a web-based whistleblower system (iTrust), which is available in several languages. It is also possible to submit a complaint anonymously. The system is available at all times to all MTU employees, third parties and other stakeholders, such as suppliers and their workers. These channels were set up by MTU itself.

In addition to the publicly accessible website, which contains a full set of information on potential complaints channels, the options for reporting possible violations are included in the Supplier Code of Conduct. In addition, the Code of Conduct requires the implementation of a dedicated complaints channel at the supplier itself, which enables workers or other stakeholders to report potentially illegal practices in the workplace or misconduct.

The issues raised and addressed are tracked and monitored by the compliance officer, overseen by the human rights officer (HRO), ensuring the effectiveness of the channels. The compliance officer is responsible for the receipt confirmation of a complaint, follow-up in case more information is needed and the initiation or coordination of subsequent actions. In the event of violations, the compliance officer informs the purchasing organization concerned and the human rights officer, and the latter involves the Group human rights coordinators and site human rights coordinators as required when determining the action to be taken.

The effectiveness of the complaints procedure is reviewed annually and on an ad hoc basis if MTU has reason to expect a significant change or deterioration in the risk situation within its own operations or at direct suppliers.

MTU assesses whether value chain workers are aware of the complaints procedure and reporting channels and trust them as a way to raise their concerns or needs and have them addressed. This is ensured by communicating openly about the grievance mechanism and the rules of procedure, including to third parties, e.g. through information on the MTU website and the policy statement on the protection of human rights. Efforts are made to formulate information in a clear and comprehensible way. In addition, the complaints procedure (see *Business conduct policies and corporate culture (G1-1)* for further information on the corporate works agreement) explicitly states that MTU will not tolerate any form of retaliation against individuals who use these reporting channels. This is also a minimum requirement for the supplier's own complaints channel.

Taking action on material impacts on value chain workers, and approaches to managing material risks and pursuing material opportunities related to value chain workers, and effectiveness of those actions (S2-4)

MTU has taken the following actions in the upstream value chain to identify and minimize the risk of negative impacts from human rights violations and non-compliance with MTU's social standards:

- Risk analysis
- ESG assessment
- Contractual safeguarding
- Training for buyers
- Supplier visits
- Conflict minerals survey

Most of the actions listed result from the implementation of the requirements of the German Supply Chain Due Diligence Act and therefore primarily relate to the identified material impacts, risks and opportunities that affect direct suppliers, with the exception of the conflict minerals survey. Actions that relate to material impacts, risks and opportunities in the higher upstream value chain are reviewed and, if necessary, implemented as part of the implementation of the CSDDD.

Since no opportunities, risks or material positive impacts on workers in the value chain were identified, no actions were taken to manage these impacts, risks or opportunities.

An annual risk analysis is conducted for direct suppliers of fully consolidated Group companies using a standardized tool, taking into account the likelihood of occurrence and the extent of damage. This is based on defined ESG-relevant criteria such as product groups and their sourcing countries. Building on this, other criteria such as the ESG assessment of a third-party provider are included in the evaluation in order to map a supplier-specific risk in relation to sustainability. In the coming years, the existing risk management system will be reviewed regarding the requirements of emerging regulations such as the Corporate Sustainability Due Diligence Directive (CSDDD) and adapted where necessary.

In order to obtain more information about suppliers, MTU requires an ESG assessment by an external provider from key suppliers. Key suppliers are defined on the basis of an increased ESG risk and/or purchasing volume. In addition to environmental, human rights and ethical issues, this also covers sustainable procurement. The statements in the questionnaire must be supported by evidence in order to validate the information provided and to be able to reliably assess the supplier's sustainability activities. The ESG assessment supports the monitoring of the contents of the MTU Supplier Code of Conduct and helps to identify material impacts and risks at supplier level. The scope of application is currently being expanded.

The content of the Supplier Code of Conduct is a binding component of the contract templates and the terms and conditions of purchase. This means that fundamental requirements on human rights and environmental issues are included in the negotiations before the contract is signed. The Code of Conduct is based on international standards and defines social and environmental requirements, respect for human rights and integrity in business conduct, including the prohibition of corruption and bribery. By signing the contract, each supplier commits to adhering to these principles and passing them on to their subcontractors.

In the event of serious violations such as corruption, extortion, favoritism, or child labor in the execution of orders for MTU, the company reserves the contractual right to terminate the collaboration with immediate effect.

In addition to the contractual requirements, MTU purchasers receive regular training on the topic of ESG, the requirements in this field and possible preventive measures. The aim of the training is to ensure that the content can be implemented by the suppliers. They also create an understanding of the importance of the issues among the people involved.

MTU employees generally visit the production sites of all OEM production material suppliers several times a year, which means that serious violations of the Supplier Code of Conduct are also monitored.

To avoid the use of conflict minerals, MTU conducts an annual survey of OEM suppliers of products containing the following raw materials: tantalum, tin, gold and tungsten. Procurement of these minerals can be problematic because some of them come from Central African mines where the profits may be used specifically to fund armed conflicts that violate human rights.

MTU does not procure minerals directly; instead, they enter production or pre-production via a global, multi-stage upstream value chain. The relevant suppliers of components containing minerals named in the Dodd-Frank Act are therefore required to provide information once a year on the origin of minerals and only to procure minerals from certified mines and smelters (compliant smelter list) in order to minimize the risk of conflict minerals in the supply chain.

As described above for the policies, the current actions are focused mainly on direct suppliers. However, as part of the implementation of the Corporate Sustainability Due Diligence Directive (CSDDD), reasonable measures for the higher upstream value chain are also examined and, if necessary, included in the catalog of actions.

Severe human rights issues or other incidents connected to the upstream and downstream value chain have not been reported.

Violations of the Supplier Code of Conduct can be reported at any time via the grievance mechanism (see *Processes to remediate negative impacts and channels for value chain workers to raise concerns (S2-3)* for further details).

In the event of incidents in the upstream value chain, corrective measures are initiated and followed up by the responsible persons defined in the risk management system. There are no predefined remedial measures, as these are adapted, developed and implemented depending on the case.

In the purchasing organizations, the sustainability coordinators take charge of the material impacts, risks and opportunities identified, develop policies for their management and define actions for their implementation. This is usually done in coordination with other departments.

Purchasing management is regularly informed about the current status of the actions, their implementation and the effects on the upstream value chain and is involved in the further development of the actions and policies.

The respective buyers are responsible for communicating with suppliers and for the specific implementation of the actions, with the professional support of the sustainability coordinators. In addition, progress in implementing the actions is regularly reviewed by purchasing management.

The effectiveness of the actions has not yet had to be verified, as no violations are known to date. Once the roll-out of the ESG assessment has been completed, the annual update of the results will enable a well-founded analysis of the development of sustainability issues at supplier level.

Risk analysis	
Key actions taken and outcomes achieved	An annual risk analysis is conducted for direct suppliers of fully consolidated Group companies using a standardized tool, taking into account the likelihood of occurrence and the extent of damage. The analysis is based on defined ESG-relevant criteria such as product categories and their procurement countries (ESG=Environmental, Social, Governance). The risk analysis is integrated into the existing risk process for suppliers. Additionally, key suppliers are screened for compliance with sustainability aspects using an ESG assessment tool and a scorecard to systematically record relevant aspects. The risk management process includes preventive and, if necessary, corrective measures. The risk analysis is used to identify suppliers who may pose a risk of disregarding human rights or social standards and serves as a basis for initiating preventive actions.
Key actions planned and time horizons for implementation	A possible extension of these requirements could include compliance with due diligence obligations in the higher upstream value chain. Planning for the coming years is still being finalized, which is why no firm statements can be made. The actions implemented in the reporting year will be continued on an ongoing basis.
Contribution to the policy objectives and requirements	Monitoring process for the Supplier Code of Conduct
Scope	All direct suppliers of the fully consolidated locations in the past fiscal year, regardless of their activity and geographical location

ESG assessment

Key actions taken and outcomes achieved	MTU requires an ESG assessment from a third-party provider, which must be renewed annually. The statements in the questionnaire must be supported by appropriate evidence, the content of which is checked by the assessment provider. The aim of the ESG assessment is to ensure a reliable assessment of the sustainability performance of suppliers. The current expansion of the scope is intended to improve and expand the data basis for assessing social topics and human rights in the upstream value chain.
Key actions planned and time horizons for implementation	The scope of affected suppliers is currently being expanded further in order to cover a broader population. Planning for the coming years is still being finalized, which is why no firm statements can be made. The actions implemented in the reporting year will be continued on an ongoing basis.
Contribution to the policy objectives and requirements	Compliance with the Supplier Code of Conduct and identification of material impacts and risks in the upstream value chain.
Scope	Key direct suppliers that are significant for MTU based on revenue and risk-oriented criteria, for OEM and MRO production materials and in general purchasing, including new suppliers regardless of activity or geographical location.

Contractual safeguarding

Key actions taken and outcomes achieved	By signing the contract, each supplier commits to complying with the content of the Supplier Code of Conduct and to passing it on to their subcontractors. In addition, the terms and conditions of purchase of MTU include a clause regarding compliance with the Supplier Code of Conduct. The aim is to guarantee minimum standards at MTU through contractual agreements. In the event of non-compliance with these standards, MTU has put measures in place that, in the case of serious violations, can extend as far as termination of the contract.
Key actions planned and time horizons for implementation	A possible extension of these requirements could include compliance with due diligence obligations in the upstream value chain. Planning for the coming years is still being finalized, which is why no firm statements can be made.
Contribution to the policy objectives and requirements	Contractual basis for ensuring compliance with the Supplier Code of Conduct and the requirements of the terms and conditions of purchase.
Scope	All orders in the fiscal year, irrespective of the activities and geographical location of the direct supplier

Training for buyers

Key actions taken and outcomes achieved	MTU regularly trains its buyers on the Code of Conduct, which applies to all employees of the company and prohibits corruption, bribery, favoritism, and anti-competitive behavior. MTU's buyers are also given specific training on the Supplier Code of Conduct. Additionally, MTU offers specialized corporate responsibility trainings, specifically tailored to the procurement department's requirements. The aim of the trainings is to sensitize participants and raise their awareness of sustainability standards in the upstream value chain and their background.
Key actions planned and time horizons for implementation	Additional training sessions are planned for the next fiscal year. Planning for the coming years is still being finalized, so no concrete statements can be made. The actions implemented in the reporting year will be continued on an ongoing basis.
Contribution to the policy objectives and requirements	Basis for the monitoring process for compliance with the Supplier Code of Conduct
Scope	Buyers at the following sites: / MTU Aero Engines AG (Munich) / MTU Aero Engines Polska sp.z.o.o. / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Canada Ltd / MTU Maintenance Dallas Inc. / MTU Maintenance do Brasil Ltda. / MTU Maintenance Hannover GmbH / MTU Maintenance Lease Services B.V. / MTU Maintenance Serbia d.o.o. / MTU Maintenance Australia Pty. Ltd. / MTU Maintenance Service Center Ayutthaya Ltd. for production and general material.

Supplier visits	
Key actions taken and outcomes achieved	As part of the business relationships with OEM production suppliers, MTU employees generally visit the production sites of all suppliers several times a year. These visits serve as an additional control mechanism to identify obvious violations of the Supplier Code of Conduct.
Key actions planned and time horizons for implementation	Planning for the coming years is still being finalized, which is why no firm statements can be made. The actions implemented in the reporting year will be continued on an ongoing basis.
Contribution to the policy objectives and requirements	Monitoring process for the Supplier Code of Conduct
Scope	OEM production suppliers (Tier 1) regardless of geographical location

Conflict minerals survey	
Key actions taken and outcomes achieved	To be able to rule out the use of conflict minerals, MTU conducts an annual survey of OEM suppliers of products containing the following raw materials: tantalum, tin, gold and tungsten. The aim of the survey is to ensure that the upstream value chain for MTU products does not contain conflict minerals.
Key actions planned and time horizons for implementation	Apart from the continuation of the action, no further actions are currently planned. The actions implemented in the reporting year will be continued on an ongoing basis.
Contribution to the policy objectives and requirements	Monitoring of the requirements in the terms and conditions of purchase on conflict minerals.
Scope	Relevant OEM suppliers that supplied components with minerals named in the Dodd-Frank Act in the reporting year, regardless of activities and geographical location

Targets related to managing material impacts, and managing material risks and opportunities (S2-5)

For the upstream value chain, no quantitative targets can be reported that meet the requirements of the ESRS. Nevertheless, the implementation of actions and their progress are regularly monitored and actions for improvement are defined. However, these are not based on fixed targets.

Due to the risk situation and the general maturity of the topic of sustainability, the policies and actions implemented to manage and promote the material impacts, risks and opportunities identified did not have the strategic importance in the purchasing departments in the past required for defining quantitative targets (see statements under *Interests and views of stakeholders (SBM-2)*). However, qualitative targets were set for the implementation of sustainability criteria in the procurement processes.

Product quality and flight safety

Within the framework of this sustainability statement, MTU has identified the topic of "product quality and flight safety" as an entity-specific topic that is essential for the long-term success of the company and the safety of its customers.

Material impacts, risks and opportunities and their interaction with strategy and business model

In the aviation industry, ensuring product quality and flight safety is of vital importance. To minimize potential impacts on flight safety, defect-free product quality as a key corporate goal is an integral part of MTU's strategy and business model. Derived from its "Zero Defects" vision, MTU assesses the topic of product quality and flight safety as material in accordance with its self-defined zero-tolerance principle (see *Description of the process to identify and assess material impacts, risks and opportunities (IRO-1)* for further information on how this criterion is taken into account in the double materiality assessment).

Policies related to product quality and flight safety

MTU's integrated management system (IMS) serves to comply with aviation regulations, customer requirements and MTU's internal requirements and to implement them as a management system with clear roles and responsibilities. The main principle of the IMS in this context is: "Safety takes priority in what we do." The regulations are binding for all employees and managers within the scope and are documented as policies in the MTU management manual. The IMS forms the basis for and encompasses more specific MTU management systems for product quality and flight safety, such as the quality management system (QMS) or the safety management system (SMS). The IMS and its components support customer satisfaction, process orientation and continuous improvement in all phases of development, production and maintenance. It takes into account the requirements of the ISO9001, EN/AS9100, ISO14001/EMAS and ISO45001 standards.

Corporate Quality, which is responsible for the operational implementation, reports directly to the Chief Operating Officer (COO) and submits quarterly reports on quality aspects and flight incidents to the Executive Board. The IMS includes a safety management system (SMS) in accordance with the International Civil Aviation Organization (ICAO) standard. This defines how to handle safety-related incidents at MTU's sites and in air traffic. Appropriate organizational structures and responsibilities, such as a Flight Safety Board and a Flight Safety Manager, have also been established.

Management manual	
Content	The management manual is the overarching document in the IMS for quality, environmental protection and occupational health and safety, serving as the basis for further regulations (process descriptions, standards, and work instructions) across all business units of MTU. For this section of the report, the topic of product quality and flight safety is relevant.
Target	Supports the objective derived from MTU's "Zero Defects" vision for product quality and flight safety for the entire product life cycle of an engine.
Associated material impacts, risks and opportunities	In the aviation industry, ensuring product quality and flight safety is of vital importance. The management manual is the overarching document in the IMS and must be properly implemented in order to avoid deviations and associated risks. Non-compliance with the IMS could potentially lead to a flight incident.
Monitoring	To ensure compliance with quality and safety requirements, MTU has established comprehensive inspection and monitoring processes.
Scope	For the MTU sites covered by the CSRD scope of consolidation, the IMS is valid at the following MTU sites: / MTU Aero Engines AG (Munich) / MTU Aero Engines Polska sp. z o. o. / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH / MTU Maintenance Canada Ltd. / MTU Maintenance Dallas Inc. / MTU Maintenance Serbia d.o.o.
Responsible organizational level	The Corporate Quality Center and the Chief Operating Officer (COO) are responsible for product quality and flight safety.
Third-party standards and initiatives	Standards of the International Civil Aviation Organization (ICAO) The implementation of the IMS is validated and confirmed at the sites by independent and accredited inspection bodies. More information is available online on the MTU website: *https://www.mtu.de/en/engines/quality/approvals-certifications**
Availability	The policy is not publicly available and can only be accessed via the document management system for MTU employees.

To ensure compliance with quality and safety requirements, MTU has implemented comprehensive testing and monitoring processes throughout the entire value chain. Components undergo thorough testing, based on their criticality, and are monitored in the production process. Annual internal quality audits and quality audits by customers and authorities provide evidence that MTU meets uniformly high standards and is in conformance with regulatory requirements. A defined process ensures that all customer complaints regarding inadequate quality of MTU products are followed up and analyzed and that suitable actions are defined and implemented to eliminate the causes of defects. The effectiveness of these actions is closely monitored in the IMS through defined processes and reporting.

Actions and resources in relation to material sustainability matters

MTU continuously monitors the quality of its products and services. MTU is continuously developing its quality management system and the associated regulations. The company also draws ideas from industry initiatives, such as from its involvement in AESQ (Aero Engine Supplier Quality Group), an international quality group for the engine industry, or from the regular sharing of experience and information between quality managers. Continuous development focuses first and foremost on the set of rules and internal quality reporting.

Continuous development of the integrated management system

Key actions taken and outcomes achieved	Regular site-specific training on quality aspects is held for employees and managers. New employees, for example, are required to complete mandatory training on the IMS. Time horizons for these activities are continuous. In the reporting year, MTU continued the development of the IMS and the SMS subsystem in light of new regulatory requirements from the European aviation authority. As a first step, a new training concept with web-based mandatory trainings for all employees and in-depth training for MTU safety personnel was rolled out for the German locations (starting as early as 2023). MTU is committed to meeting both existing and new requirements on flight safety and product quality, including through implementing actions and the associated continuous development of the IMS, in order to meet customers' and regulatory authorities' expectations and also to achieve its own ambition of innovative and safe solutions in all phases of development, production and maintenance.
Key actions planned and time horizons for implementation	MTU continuously develops its quality management, its internal quality reporting and the digitalization of quality processes.
Contribution to the policy objectives and requirements	Supports the objective derived from MTU's "Zero Defects" vision for product quality and flight safety. The continuous development of the IMS contributes to achieving this target.
Scope	All MTU employees at the MTU sites according to the line "Scope" (Table: management manual), unless otherwise specified.

Tracking effectiveness of policies and actions through targets

MTU has set itself internal quantitative targets in the area of quality management, but these cannot be published as part of the sustainability statement as they contain sensitive information. MTU has additionally set itself qualitative targets for quality management / product quality and flight safety as part of its Sustainability Program 2025+ and in line with its "Zero Defects" vision:

- Implementation of innovative and, at the same time, recognized standards
- Commitment to the further development of state-of-the-art standards
- High level of employee training and support through the use of digital solutions
- Recognized and standardized methods for systematic error prevention, analysis and sustainable remediation

MTU uses continuous data analysis – for example, of customer complaints – as operational indicators for achievement of the qualitative targets for customer satisfaction, product quality and flight safety.

Business conduct

Business conduct policies and corporate culture (G1-1)

MTU's corporate culture is characterized by trust and mutual respect. Compliance with legal requirements and adherence to ethical principles are fundamental components of this culture and are embedded in MTU's Code of Conduct. The Code of Conduct serves as the Group-wide policy for lawful business conduct and demands responsible and ethical behavior from both employees and management. Compliance with the Code of Conduct is supported, in particular, by the whistleblower protection policy, which, as a corporate works agreement, covers the fundamentals of the whistleblower reporting office, and by the rules of procedure for complaints and whistleblowing, which create transparency regarding the available reporting channels.

MTU's compliance management system (CMS) is designed to ensure compliance with legislation and internal policies. It is intended to promote ethical conduct and prevent misconduct. It encompasses risk identification, preventive measures, and continuous monitoring to maintain regulatory compliance and support corporate integrity and is characterized by a continuous improvement process.

Raising MTU employees' awareness of compliance-related issues is part of the preventive actions. MTU has established a training concept on relevant corporate governance topics (general business conduct): This includes both role-specific expectations – for example, for managers – and fundamental business conduct principles in line with MTU's Code of Conduct, including requirements for business and contractual relationships with third parties, trade compliance, data security and potential conflicts of interest. The training program includes basic training on the MTU Code of Conduct and other training courses, some of which are function-specific.

MTU's long-term business success is based on compliance with the applicable laws and regulations and the company's own internal policies. MTU's policies are in line with the United Nations Convention against Corruption and condemn corruption of any kind. Derived from MTU's zero-tolerance management approach, compliance with the statutory provisions of foreign trade law (trade compliance) is another important aspect of business conduct. Customs and export control laws regulate the distribution and sale of products, the sharing of technical data and the provision of services. All business units, subsidiaries, and employees are bound by these legal frameworks.

Corporate works agreement on Code of Conduct for employees

Content	MTU's internal Code of Conduct (also available to the public in an abridged version) emphasizes the importance of integrity and responsibility across all business areas. Employees are obliged to comply with legal requirements and internal rules while adhering to ethical standards of conduct. In addition, the Code of Conduct highlights the importance of respectful and fair interactions among colleagues, with business partners and customers. The Code also describes MTU's commitment to human rights, equal opportunities, safe working conditions and environmental sustainability and it also covers fair competition, trade compliance, prevention of insider trading, and outlines enforcement measures and consequences for violations.
Target	The main objective of the Code of Conduct is to establish clear policies and standards for ethical behavior and decision-making for MTU's workforce. It is designed to ensure consistency, integrity and compliance with laws and regulations. At the same time, the Code of Conduct aims to foster a positive work environment, protect MTU's reputation, and build trust with stakeholders.
Associated material impacts, risks and opportunities	Supporting the potential positive material impact through the MTU-specific framework with regard to combating corruption and bribery.
Monitoring	It is the responsibility of every MTU manager to ensure that all employees are aware of this policy and comply with its provisions. MTU regularly trains its employees and managers across all hierarchies on the Code of Conduct. When new employees are taken on, MTU informs them about the Code of Conduct and requires them to sign a declaration committing to uphold it. The Code of Conduct is subject to oversight by the Works Council.
Scope	The corporate works agreement applies to all employees of the following MTU Group companies: / MTU Aero Engines AG (Munich) / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH / eMoSys GmbH
Responsible organizational level	MTU's Executive Board is responsible for implementing the Code of Conduct. As part of compliance-related regular reporting, the compliance officer regularly reports to the Executive Board on adherence to the Code.
Availability	The policy is accessible to MTU employees via the document management system and can be viewed publicly in an abridged version: https://www.mtu.de/fileadmin/EN/7_News_Media/2_Media/Brochures/Company/MTU_Verhaltensgrundsaetze_en_2604_150.pdf*

Rules of procedure for complaints and whistleblowing

Content	Communication and transparency about the available reporting channels for complaints and reports, which can be used to report any information on possible violations of laws and/or regulations, including human rights or environmental risks or violations in MTU's own operations and throughout the entire value chain. The complaints procedure is available to MTU employees, external individuals and external organizations alike.
Target	Transparency and easy access to the various reporting channels
Associated material impacts, risks and opportunities	Supporting the potential positive material impact through the MTU-specific framework with regard to combating corruption and bribery.
Monitoring	It is the responsibility of every MTU manager to ensure that all employees are aware of this policy and comply with its provisions.
Scope	The rules of procedure for complaints and whistleblowing applies worldwide, regardless of the person involved.
Responsible organizational level	The Group compliance officer is responsible for implementing the rules of procedure.
Availability	The policy is publicly available on the MTU website: *https://www.mtu.de/fileadmin/EN/7_News_Media/2_Media/Brochures/Company/Rules_of_procedure.pdf**

Whistleblower protection policy

Content	The corporate works agreement sets out the fundamentals of the whistleblower reporting office along the reporting office's process steps (including receiving reports, processing and investigation, deriving measures, information and communication) and basic requirements for confidentiality, investigation and information.
Target	Documentation of MTU requirements and process steps for whistleblowers in accordance with the requirements for the internal reporting office procedure pursuant to Section 16 of the German Whistleblower Protection Act (HinSchG).
Associated material impacts, risks and opportunities	Supporting the potential positive material impact through the MTU-specific framework with regard to combating corruption and bribery.
Monitoring	It is the responsibility of every MTU manager to ensure compliance with the policy. Process monitoring is the responsibility of the compliance function.
Scope	The corporate works agreement applies to all employees of the following MTU Group companies: / MTU Aero Engines AG (Munich) / MTU Maintenance Berlin-Brandenburg GmbH / MTU Maintenance Hannover GmbH / eMoSys GmbH
Responsible organizational level	The Group compliance officer is responsible for implementing the policy.
Availability	The policy is not publicly available and can only be accessed via the document management system for MTU employees.

MTU Aero Engines AG's global whistleblowing system provides a mechanism for employees and stakeholders to report any suspected misconduct or violations of regulations. It includes protecting whistleblowers from retaliation and promotes a culture of transparency and accountability within the organization. MTU's iTrust system is a platform that employees and stakeholders can use to report compliance concerns and potential misconduct securely, confidentially and anonymously. MTU's procedures for investigating business conduct incidents, including incidents of corruption and bribery, promptly, independently and objectively, build on the following key elements:

- Anonymous reporting & communication through iTrust whistleblowing system
- FAQ with detailed information on the practical function of the iTrust whistleblowing system
- Confidential investigation and feedback to whistleblowers
- Time off work for whistleblowers or affected persons for the duration of the investigation or organizational protective measures during the ongoing investigation
- Regular training and professional development for compliance function employees

In accordance with the principles for the protection of whistleblowers, reports are processed and investigated in accordance with MTU Aero Engines AG's Group-wide rules of procedure for complaints and whistleblowing. The identity of the whistleblowers and the content of the report are treated confidentially. A complaint process is only effective if the individuals providing the information are protected against any disadvantages or reprisals arising from the report. MTU does not tolerate retaliatory measures. It appreciates the reports and the associated interest in protecting the company and its stakeholders by addressing any potential wrongdoing. MTU's compliance function is the recipient of any reports from the whistleblowing system. Compliance function employees regularly take part in external training and professional development events and subject specific conferences. The Group compliance officer is responsible for implementing the policy.

Prevention and detection of corruption and bribery (G1-3)

As a member of the UN Global Compact, a global multi-stakeholder initiative, MTU is committed to complying with the Ten Principles, which include the protection of human rights, fair working conditions, environmental protection and anti-corruption. In addition, the company participates in topic-specific initiatives that focus on anti-corruption, such as TRACE International.

As part of its company-wide strategy, MTU pursues the objective of consistently preventing corruption and bribery through a zero-tolerance principle. From the perspective of the management bodies, the CMS and the associated whistleblower system are intended to ensure that legal provisions and internal policies are complied with and that potential misconduct is uncovered (see *Business conduct policies and corporate culture (G1-1)* for more information on the whistleblower system). To minimize corruption risks, the compliance officer reviews all sales-related consultancy contracts for potential risks before they are concluded or renewed involving external service providers as needed. In addition, the Corporate Audit organizational unit assesses the appropriateness and effectiveness of MTU's CMS and internal control system through comprehensive audits and supports the compliance organization in uncovering misconduct within the company – for example, by reviewing processes and controls. MTU follows the standards of the IDW AsS 980 assurance standard published by the Institute of Public Auditors in Germany and the Good Practice Guidance on Internal Controls, Ethics, and Compliance issued by the Organization for Economic Co-operation and Development (OECD). MTU has also signed the standards issued by the Aerospace and Defense Industries Association of Europe (ASD), which aim to prevent corruption and bribery and encourage fair competitive conditions. In Germany, this initiative is supported by the German Aerospace Industries Association (BDLI). The standards are also set out in contracts with sales consultants as binding criteria.

In line with MTU's zero-tolerance principle on corruption and bribery, any allegations or suspicions are taken seriously and thoroughly investigated. MTU cooperates fully with law enforcement agencies and regulatory bodies during the investigation.

The compliance officer is responsible for handling allegations or incidents of corruption and bribery, irrespective of the management level involved. A systematic process has been established through which the compliance officer and the Compliance Board provide information to the Executive Board and the Audit Committee. This includes the regular monthly report to the Executive Board on current compliance issues, the quarterly Compliance Board meetings and ad hoc reporting as required.

MTU's Group-wide training plan is in line with the Group policies and in fiscal year 2024 included both cross-functional basic training on the Code of Conduct and topic-specific training on combating bribery and corruption for the functions-at-risk.

The basic training course on the Code of Conduct was redesigned in the reporting year as a more modern form of web-based training with gamification approaches and focuses on increasing awareness and building competencies for decisions in the event of ethical dilemmas in daily tasks. The participants in the training are taken on a journey through typical risky business situations in a realistic and practical way and have to resolve these through ethical decisions in order to achieve the training goal. At the same time, various examples of corruption are used to shed light on the global perspective and the particular danger posed by working with public officials.

Training title	Type	Scope	Depth
Code of Conduct	/ Web-based training or e-Info (PDF) / Duration approx. 45 min	/ Bookable for all employees throughout the Group / Part of the onboarding for new hires / Newly introduced training certificate valid for three years	/ MTU values, including resolving ethical conflict situations, including under pressure, that could lead to corruption or bribery / Detailed information on corruption and public authorities
Anti-bribery / anti-corruption	/ In-person or virtual training, 3-4 times p.a / Duration approx. 60 min	/ Bookable for all employees throughout the Group / Employees in functions-at-risk are a particular target group	/ In-depth training on anti-bribery and anti-corruption to raise awareness in particular among employees in functions-at-risk

MTU attaches great importance to the continuous training and development of its employees, especially in functions-at-risk. In line with the preventive approach of the compliance organization, the definition of functions-at-risk at MTU in the area of corruption and bribery covers around a quarter of all employees. This definition includes individuals who are classified as having functions-at-risk due to their tasks and responsibilities in areas such as purchasing and sales, accounting, IT, the legal department or the compliance organization. Among the group of affected individuals are also senior employees such as general managers, executives and members of the Executive Board, and the MTU Works Council.

Due to the fact that MTU is reporting for the first time in accordance with ESRS and given the broad definition of functions-at-risk at MTU, fully capturing training coverage in the MTU training management systems is a challenge. In 2024, the training coverage for high-risk functions was 71%. The switch to the new training certificates introduced in the reporting year with a maximum validity period of three years, the recertification process for certificates that expired in December 2024 and the implementation of the new web-based training courses are expected to be completed at all MTU sites in 2025. The aforementioned challenges have led to a temporary shift in the recording of training coverage, as the employees concerned are currently in the process of recertification.

MTU's training management is geared toward systematically and sustainably improving the coverage rate. The fields of action identified in the previous section show that it is crucial to fully record all relevant employees in functions-at-risk in the training management systems. MTU expects to significantly increase the training coverage of functions-at-risk when the technical implementation measures are completed in 2025, so as to ensure that all employees are fully trained and demonstrably up to date with the latest compliance requirements concerning the Code of Conduct and combating bribery and corruption.

Percentage of employees in functions-at-risk covered by training programs

Percentage of training coverage for functions-at-risk	71%

The members of the Supervisory Board of MTU Aero Engines have not yet been included in the aforementioned training curriculum. Both the Executive Board and the Supervisory Board are recipients of regular and ad hoc reports from the MTU compliance function and are therefore particularly aware of the issues of anti-corruption and anti-bribery. The members of the Supervisory Board also undertake their own training on compliance-specific topics and are supported in this by MTU where necessary. For further information, see the qualification matrix of the Supervisory Board and the declaration of conformity with the recommendations of the GCGC in the *section of the combined management report headed Corporate governance statement*.

Incidents of corruption or bribery (G1-4)

No convictions for violations of anti-corruption and anti-bribery laws were reported in the reporting period. Furthermore, no incidents were recorded with actors in the value chain in which MTU or its employees were involved.

Convictions and fines

Number of convictions for violations of anti-corruption and anti-bribery laws	0
Amount of fines for violations of anti-corruption and anti-bribery laws	€0

Tracking the effectiveness of policies and actions through targets

For the sustainability matter of business conduct, no quantitative targets can be reported that meet the requirements of the ESRS.

Appendix

Disclosure Requirements in ESRS covered by the undertaking's sustainability statement

Index

ESRS	Topic	Disclosure Requirement	Reference (page number) sustainability statement
ESRS S2	Workers in the value chain	S2-SBM-3 Material impacts, risks and opportunities and their interaction with strategy and business model	184
		S2-1 Policies related to value chain workers	185
		S2-2 Processes for engaging with value chain workers about impacts	188
		S2-3 Processes to remediate negative impacts and channels for value chain workers to raise concerns	188
		S2-4 Taking action on material impacts on value chain workers, and approaches to managing material risks and pursuing material opportunities related to value chain workers, and effectiveness of those actions	189
		S2-5 Targets related to managing material impacts, advancing positive impacts, and risk and opportunities	192
ESRS G1	Business conduct	G1-1 Business conduct policies and corporate culture	195
		G1-3 Prevention and detection of corruption and bribery	197
		G1-4 Incidents of corruption or bribery	199

List of phased-in Disclosure Requirements

ESRS	Disclosure Requirement	Description	Use of the exemption
ESRS 2	SBM-1 40 (b) and (c)	Strategy, business model and value chain Revenue by significant ESRS sectors	Yes
ESRS 2	SBM-3 48(e)	Material impacts, risks and opportunities and their interaction with strategy and business model Anticipated financial effects	Yes
ESRS E1	E1-9	Anticipated financial effects from material physical and transition risks and potential climate-related opportunities	Yes
ESRS E5	E5-6	Anticipated financial effects from resource use and circular economy-related risks and opportunities	Yes
ESRS S1	S1-7	Characteristics of non-employees All datapoints	Yes
ESRS S1	S1-8	Collective bargaining coverage and social dialogue Datapoints related to own employees in non-EEA countries	Yes
ESRS S1	S1-11	Social protection All datapoints	Yes
ESRS S1	S1-12	Persons with disabilities All datapoints	Yes
ESRS S1	S1-13	Training and skills development All datapoints	Yes
ESRS S1	S1-14	Health and safety Datapoints related to cases of work-related ill-health and the number of days lost to injuries, accidents, fatalities and work-related ill health	Yes
ESRS S1	S1-14	Health and safety Datapoints related to non-employees	Yes
ESRS S1	S1-15	Work-life balance All datapoints	Yes

List of datapoints from other EU regulations

Disclosure Requirement and related datapoint	Materiality	Section in the sustainability statement
ESRS 2 GOV-1 paragraph 21 (d) Board gender diversity	Mandatory	The role of the administrative, management and supervisory bodies (GOV-1)
ESRS 2 GOV-1 paragraph 21 (e) Percentage of board members who are independent	Mandatory	The role of the administrative, management and supervisory bodies (GOV-1)
ESRS 2 GOV-4 paragraph 30 Statement on due diligence	Mandatory	Statement on due diligence (GOV-4)
ESRS 2 SBM-1 paragraph 40 (d) i Involvement in activities related to fossil fuel activities	Mandatory	Not applicable
ESRS 2 SBM-1 paragraph 40 (d) ii Involvement in activities related to chemical production	Mandatory	Not applicable
ESRS 2 SBM-1 paragraph 40 (d) iii Involvement in activities related to controversial weapons	Mandatory	Not applicable
ESRS 2 SBM-1 paragraph 40 (d) iv Involvement in activities related to cultivation and production of tobacco	Mandatory	Not applicable
ESRS E1-1 paragraph 14 Transition plan to reach climate neutrality by 2050	Material	Transition plan for climate change mitigation (E1-1)
ESRS E1-1 paragraph 16 (g) Undertakings excluded from Paris-aligned Benchmarks	Material	Transition plan for climate change mitigation (E1-1)
ESRS E1-4 paragraph 34 GHG emission reduction targets	Material	Targets related to climate change mitigation and adaptation (E1-4)
ESRS E1-5 paragraph 38 Energy consumption from fossil sources disaggregated by sources (only high climate impact sectors)	Material	Energy consumption and mix (E1-5)
ESRS E1-5 paragraph 37 Energy consumption and mix	Material	Energy consumption and mix (E1-5)
ESRS E1-5 paragraphs 40 to 43 Energy intensity associated with activities in high climate impact sectors	Material	Energy consumption and mix (E1-5)
ESRS E1-6 paragraph 44 Gross Scopes 1, 2, 3 and Total GHG emissions	Material	Gross Scopes 1, 2, 3 and Total GHG emissions (E1-6)
ESRS E1-6 paragraphs 53 to 55 Gross GHG emissions intensity	Material	Gross Scopes 1, 2, 3 and Total GHG emissions (E1-6)
ESRS E1-7 paragraph 56 GHG removals and carbon credits	Material	GHG removals and GHG mitigation projects financed through carbon credits (E1-7)
ESRS E1-9 paragraph 66 Exposure of the benchmark portfolio to climate-related physical risks	Material	Use of the exemption

Disclosure Requirement and related datapoint	Materiality	Section in the sustainability statement
ESRS E1-9 paragraph 66 (a) Disaggregation of monetary amounts by acute and chronic physical risk ESRS E1-9 paragraph 66 (c) Location of significant assets at material physical risk	Material	Use of the exemption
ESRS E1-9 paragraph 67 (c) Breakdown of the carrying value of its real estate assets by energy-efficiency classes	Material	Use of the exemption
ESRS E1-9 paragraph 69 Degree of exposure of the portfolio to climate-related opportunities	Material	Use of the exemption
ESRS E2-4 paragraph 28 Amount of each pollutant listed in Annex II of the E-PRTR Regulation (European Pollutant Release and Transfer Register) emitted to air, water and soil	Not material	–/–
ESRS E3-1 paragraph 9 Water and marine resources	Not material	–/–
ESRS E3-1 paragraph 13 Dedicated policy	Not material	–/–
ESRS E3-1 paragraph 14 Sustainable oceans and seas	Not material	–/–
ESRS E3-4 paragraph 28 (c) Total water recycled and reused	Not material	–/–
ESRS E3-4 paragraph 29 Total water consumption in m3 per net revenue on own operations	Not material	–/–
ESRS 2– SBM-3 – E4 paragraph 16 (a) i	Not material	–/–
ESRS 2 – SBM-3 – E4 paragraph 16 (b)	Not material	–/–
ESRS 2 – SBM-3 – E4 paragraph 16 (c)	Not material	–/–
ESRS E4-2 paragraph 24 (b) Sustainable land/agriculture practices or policies	Not material	–/–
ESRS E4-2 paragraph 24 (c) Sustainable oceans/seas practices or policies	Not material	–/–
ESRS E4-2 paragraph 24 (d) Policies to address deforestation	Not material	–/–
ESRS E5-5 paragraph 37 (d) Non-recycled waste	Not material	–/–
ESRS E5-5 paragraph 39 Hazardous waste and radioactive waste	Not material	–/–
ESRS 2- SBM-3 – S1 paragraph 14 (f) Risk of incidents of forced labour	Material	Material impacts, risks and opportunities and their interaction with strategy and business model (S1-SBM-3)
ESRS 2- SBM-3 – S1 paragraph 14 (g) Risk of incidents of child labour	Material	Material impacts, risks and opportunities and their interaction with strategy and business model (S1-SBM-3)

Disclosure Requirement and related datapoint	Materiality	Section in the sustainability statement
ESRS S1-1 paragraph 20 Human rights policy commitments	Material	Policies related to own workforce (S1-1)
ESRS S1-1 paragraph 21 Due diligence policies on issues addressed by the fundamental International Labour Organization Conventions 1 to 8	Material	Policies related to own workforce (S1-1)
ESRS S1-1 paragraph 22 Processes and measures for preventing trafficking in human beings	Material	Policies related to own workforce (S1-1)
ESRS S1-1 paragraph 23 Workplace accident prevention policy or management system	Material	Policies related to own workforce (S1-1)
ESRS S1-3 paragraph 32 (c) Grievance/complaints handling mechanisms	Material	Processes to remediate negative impacts and channels for own workforce to raise concerns (S1-3)
ESRS S1-14 paragraph 88 (b) and (c) Number of fatalities and number and rate of work-related accidents	Material	Processes to remediate negative impacts and channels for own workforce to raise concerns (S1-3)
ESRS S1-14 paragraph 88 (e) Number of days lost to injuries, accidents, fatalities or illness	Material	Use of the exemption
ESRS S1-16 paragraph 97 (a) Unadjusted gender pay gap	Material	Remuneration metrics (pay gap and total remuneration) (S1-16)
ESRS S1-16 paragraph 97 (b) Excessive CEO pay ratio	Material	Remuneration metrics (pay gap and total remuneration) (S1-16)
ESRS S1-17 paragraph 103 (a) Incidents of discrimination	Material	Incidents, complaints, and severe human rights impacts (S1-17)
ESRS S1-17 paragraph 104 (a) Non-respect of UNGPs on Business and Human Rights and OECD guidelines	Material	Incidents, complaints, and severe human rights impacts (S1-17)
ESRS 2 SBM3 – S2 paragraph 11 (b) Incidents, complaints and severe human rights impacts	Material	Material impacts, risks and opportunities and their interaction with strategy and business model (S2-SBM-3)
ESRS S2-1 paragraph 17 Human rights policy commitments	Material	Policies related to value chain workers (S2-1)
ESRS S2-1 paragraph 18 Policies related to value chain workers	Material	Policies related to value chain workers (S2-1)
ESRS S2-1 paragraph 19 Non-respect of UNGPs on Business and Human Rights and OECD guidelines	Material	Policies related to value chain workers (S2-1)
ESRS S2-1 paragraph 19 Due diligence policies on issues addressed by the fundamental International Labour Organization Conventions 1 to 8	Material	Policies related to value chain workers (S2-1)
ESRS S2-4 paragraph 36 Human rights issues and incidents connected to its upstream and downstream value chain	Material	Taking action on material impacts on value chain workers, and approaches to managing material risks and pursuing material opportunities related to value chain workers, and effectiveness of those actions (S2-4)
ESRS S3-1 paragraph 16 Human rights policy commitments	Not material	–/–

Disclosure Requirement and related datapoint	Materiality	Section in the sustainability statement
ESRS S3-1 paragraph 17 Non-respect of UNGPs on Business and Human Rights, ILO principles or and OECD guidelines	Not material	–/–
ESRS S3-4 paragraph 36 Human rights issues and incidents	Not material	–/–
ESRS S4-1 paragraph 16 Policies related to consumers and end-users	Not material	–/–
ESRS S4-1 paragraph 17 Non-respect of UNGPs on Business and Human Rights and OECD guidelines	Not material	–/–
ESRS S4-4 paragraph 35 Human rights issues and incidents	Not material	–/–
ESRS G1-1 paragraph 10 (b) United Nations Convention against Corruption	Material	Business conduct policies and corporate culture (G1-1)
ESRS G1-1 paragraph 10 (d) Protection of whistleblowers	Material	Business conduct policies and corporate culture (G1-1)
ESRS G1-4 paragraph 24 (a) Fines for violation of anti-corruption and anti-bribery laws	Material	Incidents of corruption or bribery (G1-4)
ESRS G1-4 paragraph 24 (b) Standards of anti-corruption and anti-bribery	Material	Incidents of corruption or bribery (G1-4)

List of material impacts, risks and opportunities

ESRS	Type	Time Horizon	Value chain	Description
E1	Negative impact	Short- / medium- / long-term	Downstream	MTUs products are modules for engines in the aviation sector. The GHG emissions generated by these products during the use phase have an actual negative impact on the environment by contributing to global warming. These include CO_2 emissions and non-CO_2 effects, which in turn are mainly caused by NOx and contrails.
E1	Negative impact	Short- / medium- / long-term	Own operations	As an industrial company that manufactures aircraft engine parts and maintains engines, MTU continuously generates Scope 1 and 2 GHG emissions during production, repair and testing at its six largest sites. MTU's activities have a negative impact on the environment, especially concerning climate change.
E1	Negative impact	Short- / medium- / long-term	Downstream	MTU participates in joint ventures in the downstream value chain (MTU Aero Engines AG) that are active in the OEM and MRO business; however, it does not exercise operational control over them. The business activities of these joint ventures result in the emission of GHGs. Their contribution to global climate change has negative impacts on the environment.
E1	Negative impact	Short- / medium- / long-term	Upstream	Since MTU generates GHG emissions in the upstream value chain, it has negative impacts on climate change. GHG emissions can occur along the entire upstream value chain and include processes such as processing of products and transportation.
E1	Risk	Long-term	Own operations	A risk for MTU could be that climate targets are not achieved, resulting in poor ESG ratings. The perceptions of external stakeholders and customers could deteriorate and have a potentially negative impact on financial performance through financial losses, such as reduced revenue.
E5	Positive Impact	Short- / medium- / long-term	Own operations	MTU's long-standing expertise in the maintenance, repair, and overhaul (MRO) of engines and the resulting high quality of customer-specific or needs-based engine MRO services have a positive impact on the circular economy. Only non-repairable parts are replaced, while the rest of the engine is reused. The MRO services also prolong the products' service life. MTU's MRO business activities thus significantly contribute to the circular economy through its efficient maintenance and repair operations.
S1	Negative impact	Short-/ medium- / long-term	Own operations	Ineffective structures or actions to ensure work-life balance, job security, working hours, wages, social dialogue, freedom of association, the existence of works councils, collective bargaining, and employees' rights to information, consultation and co-determination can have negative impacts on employees.
S1	Positive Impact	Short- / medium- / long-term	Own operations	Structures or measures implemented make a positive contribution to the well-being and physical health of employees by ensuring employment and financial security, work flexibility and work-life balance. They also ensure social dialogue, codetermination and consultation opportunities (incl. works councils) and create an ergonomic work environment for employees.
S1	Negative impact	Short- / medium- / long-term	Own operations	Ineffective mandatory technical training or non-continuous updates to health and safety training can have negative impacts on occupational health and safety. This has a negative impact on the workforce.
S1	Negative impact	Short- / medium- / long-term	Own operations	Ineffective occupational health and safety measures may lead to a higher probability of work-related accidents, negatively affecting a safe work environment and the well-being of the workforce.
S1	Risk	Long-term	Own operations	Restricted working conditions (e.g. insufficiently flexible working time models, low financial security, non-ergonomic workplaces, etc.) can reduce employer attractiveness, lead to higher employee turnover and, in the long term, cause a shortage of highly qualified and motivated employees. This carries the risk of higher personnel costs.
S1	Negative impact	Short- / medium- / long-term	Own operations	Cases of exclusion, discrimination and bullying can lead to psychological and emotional stress for the affected employees, which in turn has a negative impact on the individuals concerned, the corporate culture and the workforce.
S1	Negative impact	Short-term	Own operations	Ineffective actions related to training, career development, and promoting performance can lead to a lack of personal fulfillment (prospects), a sense of being underchallenged, and psychological risks, which can have a negative impact on employees.
S1	Positive impact	Short- / medium- / long-term	Own operations	A positive impact is achieved by implementing the MTU training curriculum and program – e.g., in the areas of personal development, leadership skills, IT training etc. – and through the associated KPI "training days per employee" and career development opportunities. In addition, initiatives such as job rotation, lateral hires and similar measures support employees in achieving their individual goals.

ESRS	Type	Time Horizon	Value chain	Description
S1	Negative impact	Short- / medium- / long-term	Own operations	Ineffective measures to prevent, assess and mitigate human rights violations (e.g. disregard of labor rights, child and forced labor, restriction of freedom of association, expropriation of land, discrimination, lack of equal opportunities, inappropriate use of security forces, inadequate pay/working hours) and failure to implement remedial actions can adversely affect the freedom of employees, as well as discriminate against and harm them. This may even have consequences for their mental and physical well-being.
S2	Negative impact	Short- / medium- / long-term	Upstream	Potentially inadequate working conditions in the factories of direct suppliers with a focus on casting and forging production processes, e.g. hard physical labor with a high probability of long-term injuries, working hours and fair wages. All supplier workers were considered part of the stakeholder group in the analysis.
S2	Negative impact	Short- / medium- / long-term	Upstream	Potentially negative impact assumed due to external reports on working conditions in mining, such as high safety and health risks for workers, long working hours and rather inadequate payment conditions – no transparency available regarding the higher upstream value chain. All supplier workers were considered part of the stakeholder group in the analysis.
S2	Negative impact	Short- / medium- / long-term	Upstream	Potential negative impact at direct suppliers, as the nature of the work does not usually allow for the inclusion of people with disabilities, low proportion of women in production; all current and potential workers for suppliers were treated as part of the stakeholder group in the analysis.
S2	Negative impact	Short- / medium- / long-term	Upstream	Potential negative impact due to assumed cases of discrimination based on origin, gender and ethnicity at indirect suppliers; all current and potential workers for suppliers were treated as part of the stakeholder group in the analysis.
S2	Negative impact	Short- / medium- / long-term	Upstream	Potential negative impact assumed due to reported cases of forced or child labor in mining; all workers were considered part of the stakeholder group in the analysis.
MTU specific	Negative impact	Short- / medium- / long-term	Downstream	In the aviation industry, ensuring product quality and flight safety is of vital importance. MTU has a Group-wide integrated management system (IMS), which must be properly implemented in order to avoid deviations and associated risks. Non-compliance could potentially lead to a flight incident, which would have a negative impact on customers and end users. For this reason, the topic of “product quality and flight safety” is rated as material in accordance with the MTU zero-tolerance principle.
G1	Positive impact	Short- / medium- / long-term	Own operations	MTU conducts business internationally and opens sites in several countries with lower level of implemented anti-corruption measures. Since MTU requires European standards in the aforementioned measures, it creates a learning effect, imparting knowledge to local employees and contract partners. MTU’s strategy and policies for combating corruption in less developed countries may help to increase the maturity level of anti-corruption measures, which also has an impact on societal stability and trust in local institutions. This includes economic decision-making on fair competition/combating corruption whenever MTU decides to build new sites or negotiate large order volumes.

MDR-M disclosures

ESRS	Metric	Methodology
ESRS 2 General disclosures		
ESRS 2	Number of MTU employees by region	Number of employee headcount is reported as of December 31, 2024. The primary data is provided by the IT environment or, in the case of smaller sites, by local HR business partners. Number of employees is based on the employee definition according to disclosures from S1-6 and corresponding metrics.
ESRS E1 Climate change		
E1-1	Taxonomy-aligned capital expenditure that contributing to the transition plan for climate change mitigation	The amount of Taxonomy-aligned capital expenditures that contributed to the transition plan for climate change mitigation is determined on the basis of the reporting requirements in accordance with the EU Taxonomy.
E1-3	Significant CapEx and OpEx on actions to achieve GHG emission reduction targets	The KPIs regarding the significant CapEx and OpEx for the implementation of climate change mitigation actions in the reporting year are derived from the asset additions and the expenses according to the income statement as of December 31, 2024. The disclosures on Taxonomy-eligible and Taxonomy-aligned CapEx and OpEx in this context were determined based on the reporting requirements under the EU Taxonomy.
E1-4	Contribution of the decarbonization levers to target achievement	The reported contributions to target achievement are derived on the basis of the expected contributions of MTU's planned and implemented climate change mitigation actions. The reported figures are forecasts based on assumptions regarding the implementation of the planned actions and the expected emission reductions compared with non-implementation of the actions.
E1-5	Energy consumption and mix	To calculate the energy mix, the energy mix data for the relevant energy sources concerned are taken for each site and multiplied by the site's energy consumption. The total energy consumption is determined based on meter readings and/or invoices from energy suppliers. Estimation methods were used for sites and energy sources for which no primary data could be collected. MTU's energy consumption is calculated, taking into account all available activity data per square meter. This factor is used for the estimated energy consumption of subsidiaries that do not have energy consumption data. If data is not available in time, MTU uses the previous month's or year's data or calculates the consumption data using the mean value of the available data.
E1-5	Generation of self-used energy	The amount of energy generated is recorded based on meter readings.
E1-5	Energy intensity per million euros of net revenue	The energy intensity metric represents MTU's total energy consumption in MWh per net revenue in millions of euros. The KPI is based on MTU's energy consumption in high climate impact sectors. Since MTU's entire business operations fall under the industry sector "30.30 Manufacture of air and spacecraft and related machinery" and are therefore in a high climate impact sector, the total energy consumption is reported for this performance indicator and divided by the net revenue (from contracts with customers/in accordance with IFRS 15) recorded in MTU's financial statements, which only include fully consolidated subsidiaries.
E1-6	Scope 1 emissions	The calculation of Scope 1 emissions includes the direct emission sources within the company. The data used to calculate the Scope 1 emissions is based on MTU's energy consumption data. To calculate the emissions, the activity data collected is multiplied by the corresponding emission factors. Further information on the calculation methods can be found under "Gross Scopes 1, 2, 3 and Total GHG emissions (E1-6)".
E1-6	Scope 2 emissions	To calculate the Scope 2 GHG emissions, MTU follows both location-based and market-based methods. For location-based emissions, MTU uses average energy generation emission factors specific to the MTU sites. For market-based emissions, MTU quantified the GHG emissions from generators with whom MTU has contractual agreements for bundled and unbundled electricity. If no data on contractual instruments is available, MTU takes account of the emission factor of the corresponding residual mix, if available. Further information on the calculation methods can be found under "Gross Scopes 1, 2, 3 and Total GHG emissions (E1-6)".
E1-6	Scope 3 emissions	MTU bases its calculation of Scope 3 GHG emissions on data from certain activities within its upstream and downstream value chain. Further information on the calculation methods can be found under "Gross Scopes 1, 2, 3 and Total GHG emissions (E1-6)".
E1-6	MTU's total emissions	The metric comprises the sum of MTU's gross GHG emissions in the reporting year.
E1-6	GHG intensity based on net revenue	GHG intensity per million euros of net revenue is determined on the basis of MTU's total emissions and net revenue (from contracts with customers/in accordance with IFRS 15) in tCO2eq per million euros in the reporting year.

ESRS	Metric	Methodology
E1-6	Share of purchased energy with bundled and unbundled attributes for energy generation	The share of purchased energy with bundled and unbundled attributes for energy generation is determined on the basis of the contracts for the procurement of energy. The figure is calculated as the ratio of the amount of energy purchased (electricity and district heating) with bundled or unbundled attributes for energy generation to the total amount of energy purchased (electricity and district heating).
E1-7	Metrics on carbon credits used	These metrics describe the amount of carbon credits canceled by financing projects to reduce and remove GHG emissions outside of MTU's value chain in the reporting year. The measurement is expressed in metric tons of CO_2 equivalents (CO2eq). When data is collected for this performance indicator, projects with a focus on reducing GHGs outside of MTU's value chain must first be identified. Every project to reduce GHGs is considered a reduction project (e.g. through reforestation or urban tree planting) or an extraction project (e.g. direct capture from the air). The carbon credits are based on existing contractual agreements and the receipt of carbon certificates. Finally, the data on the amount of carbon credits canceled for the reporting year per project is recorded in tons of CO2eq.
E1-7	Carbon credits planned to be canceled in the future	The stated quantity of carbon credits is calculated from the sum of contracts in place in the reporting year for the purchase and retirement of carbon credits in subsequent years.
ESRS E5 Resource use and circular economy		
E5-5	Durability of key MTU products	This key performance indicator measures the durability of MTU's products compared with the industry average. Durability is determined by the operational years or operational hours of the aircraft for which the engine or module was designed. The key performance indicator must be calculated separately for each market segment and takes into account the different useful lives both in years and in operating hours. The durability metric for each market segment is calculated by determining the ratio of the service life of MTU products in this market segment to the market segment-specific industry average. Industry-standard commercial and proprietary databases (Cirium® and Mercury) are used to calculate the industry average. As sevice life can also vary slightly within a market segment depending on the aircraft type, the average service life per market segment is calculated taking into account the corresponding sales / manufacturing figures for each aircraft type. This applies to the annual average per market segment for both MTU products and the industry average. The final durability index is calculated as a weighted average across all market segments based on the sales of MTU products. Disclosures on the estimation method: Each aircraft type has a different service life. Accordingly, the number of aircraft manufactured per aircraft type in the respective reporting period is taken into account when calculating the annual industry average. In order to calculate the average service life, the number of aircraft manufactured from January to November is taken into account, as the December figures are not available in time for year-end reporting. It is therefore assumed that the same mix of aircraft in terms of service life are manufactured in December. There is currently no data available in the standard commercial databases for calculating the industry average for business jets. Based on discussions with experts, the durability of MTU components is assessed as 100%. This corresponds to the industry average.
E5-5	Recyclable content in products and packaging	This KPI evaluates the recyclability of MTU's products and their packaging. The assessment follows the definition of recycling outlined in the EU Waste Framework Directive (2008/98/EC), excluding energy recovery and reprocessing into fuels or backfilling materials. The recyclability of MTU's products is determined at the parts level and allocated on a mass-based approach to modules (HPC, LPT, TCF) and product level. Components made of metal alloys are considered 100% recyclable, while the recyclability of other materials was determined through literature research and discussions with experts. For materials whose recyclability could not be determined, a value of 0% was assumed. The total recyclability of MTU's products is determined by dividing the recyclable content of all products sold by the total weight of products sold. The same calculation method also applies to the recyclability assessment of materials used to package the products sold, including the packaging in circulation that is owned by MTU. The packaging's rate of recyclable content is determined with the aid of the MTU packaging catalog, among other things. This contains the item numbers of the materials used for the packaging of MTU products, the material type and the weight. Using this information, the recyclability of the respective materials is first determined on the basis of literature research and discussions with experts. The recyclable weight is then calculated by multiplying the recyclability of each item of packaging by its respective weight and the quantity ordered. The total recyclable content is thus the ratio of total recyclable material to total packaging weight.

ESRS	Metric	Methodology
ESRS S1 Own workforce		
S1-6	Total workforce by number of employees and breakdown by gender	Employee information (headcount) is reported as of December 31, 2024. The primary data is provided by the HR IT environment or, in the case of smaller sites, by local HR business partners. In some EU Member States it is possible for persons to legally register themselves as having a third, often neutral, gender, which is categorized as "other" in the table. It should be noted that the gender category "other" is not applicable in the following countries with MTU sites, as it is not possible to legally register a third gender there: Brazil, China, Poland, Serbia, Singapore, USA (state of Texas).
S1-6	Number of MTU employees in countries with significant employment	The employee figures (headcount) are reported as of December 31, 2024. The primary data is provided by the HR IT environment or, in the case of smaller sites, by local HR business partners. The number of employees is reported for countries with significant employment, i.e. having 50 or more employees and representing at least 10% of the total number of employees; the reporting therefore refers to 2 out of 11 countries with MTU sites.
S1-6	Number of MTU employees by employment relationship and breakdown by gender	The number of permanent and temporary employees is reported as of December 31, 2024. Temporary employees have a fixed-term contract (full-time or part-time in accordance with national law or practice) and include both temporary blue- and white-collar workers as well as substitute contracts (e.g. for permanent employees on maternity leave or with long-term illnesses). Similarly to the definition of permanent employees, employees on maternity leave and employees with long-term illnesses are also included in the definition. The primary data is provided by the HR IT environment or, in the case of smaller sites, by local HR business partners. In some EU Member States it is possible for persons to legally register themselves as having a third, often neutral, gender, which is categorized as "other" in the table above. It should be noted that the gender category "other" is not applicable in the following countries with MTU sites, as it is not possible to legally register a third gender there: Brazil, China, Poland, Serbia, Singapore, USA (state of Texas).
S1-6	Employee turnover	The total number of employees leaving the company is reported in terms of headcount as of December 31, 2024 representing the aggregate of the number of employees who have left voluntarily or due to dismissal, retirement, or death in service. Employees with contractually fixed-term employment contracts are taken into account if they leave early. As a basic population, the number of employees (permanent and temporary) is used as a reference value in the calculation. The primary data is provided by the HR IT environment or, in the case of smaller sites, by local HR business partners.
S1-8	Collective bargaining coverage and social dialogue	The percentage of employees in the EEA covered by collective bargaining agreements is calculated by dividing the number of employees covered by collective bargaining agreements by the total number of employees in the EEA. The percentage of employees in the EEA covered by workers' representatives is calculated by dividing the number of employees working at MTU sites with workers' representatives by the total number of employees in the EEA. Only EEA countries with significant employment (> 50 employees, representing > 10 % of all employees) are considered. Number of employees is reported as of December 31, 2024. The primary data is provided by the HR IT environment or, in the case of smaller sites, by local HR business partners.
S1-9	Gender distribution at top management level	The top management levels comprise the management levels below the Executive Board: Level 1 at MTU mid-level with first-level managers (OFK) and Level 2 at MTU departmental level with second-level managers (FK). The number is the headcount and is reported as of December 31, 2024. The primary data is provided by the HR IT environment or, in the case of smaller sites, by local HR business partners. In some EU Member States it is possible for persons to legally register themselves as having a third, often neutral, gender, which is categorized as "other" in the table above. It should be noted that the gender category "other" is not applicable in the following countries with MTU sites, as it is not possible to legally register a third gender there: Brazil, China, Poland, Serbia, Singapore, USA (state of Texas).
S1-9	Distribution of employees by age group	The number is the headcount and is reported as of December 31, 2024. The primary data is provided by the HR IT environment or, in the case of smaller sites, by local HR business partners.
S1-10	Adequate wages	Primary data on the remuneration components relevant to the annual total remuneration regarding the guaranteed remuneration components for each employee is extracted from MTU's payroll system or, for countries with smaller sites, requested from payroll service providers. The respective hourly rates were analyzed for each payroll cycle if required (change in the minimum wage or remuneration during the year).

ESRS	Metric	Methodology
S1-14	Health and safety metrics	To calculate the metrics for occupational health and safety, the underlying number of employees (in contrast to the disclosures in accordance with ESRS S1-6, including interns, apprentices, trainees and working students) is reported as of December 31, 2024. The primary data is provided by the MTU HR IT environment or, in the case of smaller sites, by local HR business partners. In determining the coverage rate (inclusion of employees in accordance with ESRS S1-6, excluding interns, apprentices, trainees, and working students) with health and safety management systems, sites are considered covered if they are covered by either the IMS or the occupational health and safety management system in accordance with ISO 45001. For the German sites, coverage is provided by both systems. The following sites are certified in accordance with the ISO 45001 standard: MTU Aero Engines AG (Munich), MTU Maintenance Hannover GmbH, MTU Maintenance Berlin-Brandenburg GmbH, MTU Maintenance do Brasil Ltda., MTU Maintenance Australia Pty. Ltd. and MTU Maintenance Service Centre Ayutthaya Ltd. The certifications are reviewed annually by an external body. The number of work-related accidents, including fatalities, is documented by the occupational safety managers at site level in accordance with the standardized classification scheme (categories 1-5, from near miss to fatality) and investigated in cooperation with the affected employee and the responsible management level. Fatalities as a result of work-related injuries are recorded as category 5 accidents. They must be reported immediately to local and Group management. The primary data for the reporting period Jan. 1 – Dec. 31 is provided by the local occupational safety departments, which are responsible for the accuracy of the data. The rate of work-related accidents is calculated by dividing the respective number of cases in categories 3 and 4 by the total working hours of the employees (in contrast to the disclosures in accordance with ESRS S1-6, including interns, apprentices, trainees and working students) and standardized to one million working hours (corresponds to 500 full-time employees in the period of one year). A category 3 case corresponds to an accident at work with an injury that results in one to three days' absence from work; a category 4 case corresponds to an accident at work with an injury resulting in more than three days' absence from work. Due to legal requirements for data privacy and data protection, MTU cannot obtain and report any data for the indicator work-related ill health.
S1-16	Gender pay gap	The gross hourly wages of all male and female employees are based on the gross annual amount subject to payroll tax, which is divided by the annual working hours (adjusted for the reporting period from Jan. 1 – Dec. 31 if the payroll period differs). Primary data on the remuneration components relevant to the annual total remuneration for each employee is extracted from MTU's payroll system or, for countries with smaller sites, requested from payroll service providers. The KPI is calculated at Group level. Hourly wages at foreign sites are converted into euros accordingly.
S1-16	Ratio of the median of the total annual remuneration of all employees to the total annual remuneration of the highest-paid individual	The calculation of the median total remuneration of employees follows the definition of ESRS S1-6 (i.e. members of the Executive Board are not included as employees) and is based on the gross annual amount subject to payroll tax (for different payroll periods, adjusted to the reporting period Jan. 1 – Dec. 31). To ensure the comparability of the remuneration data, it was extrapolated to an annual working time of 2,080 hours. Primary data on the remuneration components relevant to the annual total remuneration for each employee is extracted from MTU's payroll system or, for countries with smaller sites, requested from payroll service providers. The KPI is calculated at Group level. The annual gross wage or equivalent for the foreign sites is converted into euros accordingly.
S1-17	Incidents, complaints and penalties	The figures include work-related incidents of discrimination reported or identified in the reporting period from Jan. 1 - Dec. 31 that relate to MTU's own workforce. Available reporting channels for complaints are: (i) the internet-based whistleblower system, which has been set up as a central portal for reports or complaints and offers both employees at MTU and third parties, such as employees of suppliers, the opportunity to submit information about suspected unlawful behavior, anonymously if desired. Complaints reported via the internet-based reporting system will be assessed by the compliance officer directly. Additionally, complaints may be reported via (ii) direct communication channels to the responsible management level or the equal treatment officer. Reports submitted via the National Contact Point for the OECD Guidelines at the Federal Ministry for Economic Affairs and Climate Action are also taken into account, provided MTU is aware of the report. Complaints raised and incidents reported are assessed by the Group Compliance Office in consultation with the General Equal Opportunities Office.
S1-17	Severe incidents and penalties related to human rights	The figures include severe human rights violations (e.g. forced labor, human trafficking, or child labor) reported or identified in the reporting period from Jan. 1 – Dec. 31 that relate to MTU's own workforce. Incidents reported or identified are assessed by the Compliance Office directly.

ESRS	Metric	Methodology
ESRS G1 Business conduct		
G1-3	Percentage of employees in functions-at-risk covered by training programs	The calculation of the training coverage of functions-at-risk is based on the total number of employees in functions-at-risk with valid training certificates for participation in one of the two training formats in the reporting year, standardized to the total number of employees in functions-at-risk. Employees are defined as described in "Characteristics of the undertaking's employees (S1-6)". In addition, apprentices, interns, working students and trainees are considered. Due to their tasks and responsibilities, the functions-at-risk include purchasing and sales, accounting, IT, the legal department and compliance. The group of individuals affected also includes senior employees, such as members of the management and the Executive Board, and the Works Council. The allocation of the employee headcount to the functions-at-risk is checked for double counting. The number of employees and valid training certificates relate to the reporting period from Jan. 1 – Dec. 31.
G1-4	Convictions and fines	The figures include reported convictions for corruption or bribery incidents and the amount of fines for incidents directly involving MTU or MTU employees in the reporting period from Jan. 1 – Dec. 31. Primary data is reported quarterly by each MTU site to the Group compliance officer.

Other disclosures

Disclosures under takeover law

The following disclosures are made pursuant to Section 315a in conjunction with Section 289a of the German Commercial Code (HGB) (takeover directive implementation). Items included in Section 315a of the German Commercial Code (HGB) that are not met at MTU Aero Engines AG are not mentioned here.

Composition of subscribed capital

The company's subscribed capital (capital stock) amounts to €53,824,489 and is divided into 53,824,489 registered non-par-value shares. The shares are registered shares. All shares have equal rights and each share entitles the holder to one vote at the Annual General Meeting

Restrictions on voting rights and the transfer of share ownership

As of December 31, 2024, MTU held 39,243 treasury shares (previous year: 53,575). No voting rights are exercised in respect of treasury shares. The articles of association of MTU Aero Engines AG do not contain any restrictions on voting rights or the transfer of share ownership. The Executive Board has no knowledge of any agreement between shareholders that could give rise to any such restrictions.

Rules governing the appointment and dismissal of members of the Executive Board and amendments to the company's articles of association

The rules for the appointment and dismissal of members of the Executive Board are based on Sections 84 and 85 of the German Stock Corporation Act (AktG) and Section 31 of the German Codetermination Act (MitbestG) in conjunction with Article 5 of the company's articles of association.

All amendments to the articles of association require a resolution by the Annual General Meeting with a majority of at least three quarters of the voting stock attending, pursuant to Section 179 of the German Stock Corporation Act (AktG). The right to add amendments of a purely formal nature, for instance changes to the share capital as the result of utilization of the authorized capital, is devolved to the Supervisory Board under the terms of Article 13 of the articles of association.

Authorizations conferred on the Executive Board, especially concerning the issue and purchase of shares

Authorized capital

Through the resolution adopted by the Annual General Meeting on April 21, 2021, Article 4 (5) of the articles of association was amended to authorize the Executive Board, until April 20, 2026, to increase the company's capital stock by up to €16 million, with the prior approval of the Supervisory Board, by issuing, either in a single step or in several steps, new registered non-par-value shares in return for cash and/or contributions in kind (Authorized Capital 2021).

Conditional capital

In accordance with Article 4 (6) of the articles of association, the company's capital stock may be conditionally increased by up to €3,375,511 through the issue of up to 3,375,511 new registered non-par-value shares. The purpose of this conditional capital increase is to issue shares to owners or creditors of convertible bonds and/or bonds with warrants in accordance with the authorization granted to the company under a resolution passed by the Annual General Meeting on April 15, 2015. Shares are issued at a conversion price or warrant exercise price determined on the basis of this authorization.

Further, in accordance with Article 4 (7) of the articles of association, the company's capital stock may be conditionally increased by up to €1,600,000 through the issue of up to 1,600,000 new registered non-par-value shares (Conditional Capital 2019). The purpose of this conditional capital increase is to issue shares to owners or creditors of convertible bonds and/or bonds with warrants in accordance with the authorization granted to the company under a resolution passed by the Annual General Meeting on April 11, 2019.

Further, in accordance with Article 4 (8) of the articles of association, the company's capital stock may be conditionally increased by up to €2,600,000 through the issue of up to 2,600,000 new registered non-par-value shares (Conditional Capital 2021). The purpose of this conditional capital increase is to issue shares to owners or creditors of convertible bonds and/or bonds with warrants in accordance with the authorization granted to the company under a resolution passed by the Annual General Meeting on April 21, 2021. Shares are issued at a conversion price or warrant exercise price determined on the basis of this authorization.

The Executive Board is authorized until April 20, 2026, to issue, in a single step or in several steps and with the prior approval of the Supervisory Board, bearer and/or registered convertible bonds and/or bonds with warrants (collectively referred to as "bonds"), with or without maturity date, with a total nominal value of up to €600 million, and to grant the owners of convertible bonds and/or bonds with warrants the right, obligation or option to convert them into registered non-par-value shares of the company representing a stake in the capital stock of up to €2,600,000 under the conditions established for the issue of convertible bonds or bonds with warrants. The bonds may be issued in return for cash contributions only. They may be issued in euros or – to an equivalent value – in any other legal currency, for instance that of an OECD country. They could also be issued by an affiliated company where MTU exercises control. In such cases, and subject to the prior approval of the Supervisory Board, the Executive Board was authorized to act as guarantor for the bonds and to grant the owners of the bonds the right, obligation or option to convert them into new registered non-par-value shares in MTU.

Resolution concerning the authorization to purchase and use treasury shares pursuant to Section 71 (1) no. 8 of the German Stock Corporation Act (AktG) and to exclude subscription rights

Under the resolution adopted at the Annual General Meeting of April 10, 2024, the company received the following authorizations:

a) The company is authorized to purchase treasury shares accounting for a proportion of up to 10% of the company's capital stock when the resolution is passed or – if such value is lower – the company's capital stock when the authorization is exercised, during the period from May 8, 2024 through May 7, 2026, pursuant to Section 71 (1) no. 8 of the German Stock Corporation Act (AktG). At no point in time may the value of the acquired shares, together with other treasury shares in the company's possession or which are attributed to it pursuant to Section 71a et seq. of the German Stock Corporation Act (AktG), exceed 10% of the company's capital stock. At the discretion of the Executive Board, the shares may be purchased through the stock exchange or by means of a public offer to buy addressed to all shareholders (or – where permitted by law – through a public invitation to submit an offer to sell).

   The shares must be sold in return for proceeds that are not more than 10% above or below the quoted share price, net of any supplementary transaction charges. In the case of shares purchased by means of a public offer to buy addressed to all shareholders (or a public call to submit a sell offer), the reference for the quoted share price is the average value of share prices in the closing auction of Xetra trading (or a comparable successor system) on the last three trading days prior to publication of the offer. In the event of substantial fluctuations in the share price, the Executive Board is authorized to publish a new public offer to buy or a public call to submit a sell offer based on a recalculated average value of share prices computed as outlined in the previous sentence. In the event of substantial fluctuations in the share price, the Executive Board is authorized to publish a new public offer to buy or a public invitation to submit an offer to sell, based on a recalculated average value of share prices computed as outlined in the previous sentence.

If the whole take-up of the offer (or the total number of offers) exceeds this volume, the purchase must be transacted in proportion to the number of shares offered. If the overall acceptance of the offer (or the total number of offers) exceeds this volume, the shareholders' right to tender may be excluded insofar as the purchase is made in proportion to the shares offered by each shareholder. Preferential treatment may be given to small packages (up to 100 shares) offered for sale. Further conditions may be imposed in the offer or invitation to submit offers.

b) The Executive Board is authorized to sell the purchased treasury shares in a manner other than through the stock exchange or by means of a public offer addressed to all shareholders on the condition that the shares are sold in return for cash payment at a price that is not significantly below the stock market price of the same class of shares in the company at the time of sale. However, this authorization shall apply only on the condition that the shares sold excluding subscription rights pursuant to Section 186 (3) sentence 4 of the German Stock Corporation Act (AktG) do not exceed a total amount of 10% of the company's capital stock when this authorization becomes effective or – if such value is lower – when this authorization is exercised. This limit of 10% of the capital stock shall also include option rights and/or conversion rights on shares of the company which are issued during this authorization, i.e., since May 8, 2024, excluding subscription rights in mutatis mutandis application of Section 186 (3) sentence 4 of the German Stock Corporation Act (AktG), as well as the issue or sale of treasury shares without subscription rights pursuant to Section 186 (3) sentence 4 of the German Stock Corporation Act (AktG).

c) The Executive Board is authorized to use the purchased treasury shares in a manner other than through the stock exchange or by means of an offer addressed to all shareholders if the treasury shares are issued to program participants in conjunction with the company's stock option programs and those participants are, or were, employees or service providers of the company or one of its affiliated companies. If shares are to be used by issuing them to active or former members of the MTU Executive Board under the terms of the company's stock option programs, the Supervisory Board is authorized to transact this issue.

d) Furthermore, the Executive Board is authorized to use the purchased treasury shares as partial or complete payment in conjunction with business combinations or the acquisition, whether direct or indirect, of companies, parts of companies or holdings in companies.

e) The Executive Board is also authorized, with the consent of the Supervisory Board, to use the purchased treasury shares to exercise conversion rights or discharge conversion obligations relating to convertible bonds, bonds with warrants, profit participation certificates or income bonds (or combinations of such instruments) issued by the company or by a dependent affiliated company.

f) The Executive Board is moreover authorized, with the consent of the Supervisory Board and without any requirement for a further resolution to be passed by the Annual General Meeting, to redeem purchased treasury shares in whole or in part. They may be redeemed in a simplified procedure without any capital reduction and by adapting the arithmetic value of the outstanding portion of non-par-value shares to that of the company's stock capital. The redemption may be limited to a defined fraction of the purchased shares. The authorization to redeem shares may be used on one or more occasions. If the simplified procedure is employed, the Executive Board is authorized to amend the number of non-par-value shares stated in the articles of association.

g) The above-stated authorizations may be exercised on one or more occasions, in whole or in part, individually or in combination. They may also be exercised by Group companies as defined in Section 17 of the German Stock Corporation Act (AktG).

h) The subscription rights of existing shareholders in respect of these treasury shares are excluded insofar as the shares are utilized in the manner stated above in subsections b) to e). Furthermore, in the event of an offer to buy treasury shares directed at all shareholders, subscription rights for fractional amounts may be excluded with the approval of the Supervisory Board.

Material agreements relating to change of control subsequent to a takeover bid

The convertible bond issued by MTU Aero Engines AG in September 2019 contains the following provisions with regard to a change of control: In the event of a change of control, the bond terms grant bondholders the right to exercise their conversion right within a specific period of time at an adjusted conversion rate. In the event of a change of control, bondholders can redeem their bonds prematurely at the terms described in more detail in the bond conditions.

A "change of control" comprises the acquisition of control or a mandatory offer under Section 35 (2) sentence 1 and Section 14 (2) sentence 1 of the German Securities Trading Act (WpHG). If one or more persons within the meaning of Section 29 (2) and Section 30 of the Securities Acquisition and Takeover Act (WpÜG) acquire(s) 50% of the voting rights of MTU Aero Engines AG, this shall represent an "acquisition of control."

The corporate bond issued in 2020 provides that, in the event of acquisition of 50% or more of the shares (by holding the shares pursuant to Section 33 of the German Securities Trading Act [WpHG] or through attribution pursuant to Section 34 WpHG) and a simultaneous rating downgrade, MTU Aero Engines AG will fix an optional redemption date when bondholders can redeem all or some of their bonds.

In June 2022, MTU Aero Engines AG agreed a revolving credit facility with a banking syndicate, which provides for a right of termination for the lenders in the event that one or more persons assume(s) control of MTU Aero Engines AG or acquire(s) more than 50% of the company's issued capital.

The corporate bond issued on September 13, 2024 provides that, in the event of acquisition of 50% or more of the shares (by holding the shares pursuant to Section 33 of the German Securities Trading Act [WpHG] or through attribution pursuant to Section 34 WpHG) and a simultaneous rating downgrade, MTU Aero Engines AG will fix an optional redemption date when bondholders can redeem all or some of their bonds.

MTU Aero Engines AG has risk and revenue sharing agreements with an engine manufacturer containing clauses that allow the risk and revenue sharing agreement to be converted into a long-term supplier contract in the event that a material competitor of the contracting party acquires control of 25% or more of the company's voting rights or assets.

In addition, MTU Aero Engines AG has a cooperation agreement with another engine manufacturer. Under this agreement, that manufacturer is entitled to terminate the contract for cause in the event that one of its competitors acquires more than 50% of the company's voting rights. MTU Aero Engines AG has further cooperation agreements with the same engine manufacturer. Under these agreements, that manufacturer is entitled to terminate the contract for cause in the event that one of its competitors acquires more than 30% of the company's voting rights.

MTU Aero Engines AG also has equity investments in various joint ventures with other engine manufacturers, the purpose of which is to cooperate in the development and production of aircraft engines. According to the provisions of the corresponding agreements, MTU Aero Engines AG's share in the joint venture may be withdrawn and its participation in the accompanying cooperation agreements terminated if MTU Aero Engines AG is taken over by a competitor of the partners in these consortia.

It is standard market practice to confer contractual rights of this kind. Should an event meeting any of the above definitions of change of control take place, the exercise of rights ensuing from these agreements could have a substantial impact on MTU's net assets, financial position or results of operations.

Severance payments on premature termination of contracts of service with members of the Executive Board in the event of a change of control or changes of shareholders of MTU Aero Engines AG

Under the contracts of service for members of the Executive Board in effect since January 1, 2021, a change of control is deemed to have occurred if a shareholder, alone or on the basis of the voting rights attributable to that shareholder pursuant to Section 33 of the German Securities Trading Act (WpHG), acquires the majority of the voting rights in the company and this results in material disadvantages for the Executive Board. Material disadvantages are, in particular, if the Executive Board member is removed, if the member's responsibilities and duties are significantly altered, or if the Executive Board member is asked to accept a reduction in employment benefits or to agree to premature termination of the respective contract of service. In such case, each member of the Executive Board shall have a special right of termination, which is to be exercised within a period of six months, with a period of notice of three months to the end of a month. If a member of the Executive Board makes use of the special right of termination, or if the Executive Board member's contract of service is terminated by mutual consent within nine months of the change of control, the Executive Board member receives a severance payment corresponding to the benefits still to be awarded up to the end of the contract term originally agreed. For the calculation of the severance payment, 100% target fulfillment is agreed for the variable compensation components.

The severance payments to an Executive Board member, including in the event of a change of control, are limited by the severance payment cap.

No comparable agreements have been made with regard to other employees.

Corporate governance statement

The corporate governance statement forms part of the combined management report of the MTU Group and MTU Aero Engines AG. In accordance with Section 317 (2) sentence 6 of the German Commercial Code (HGB), auditing of the disclosures in accordance with Sections 289f and 315d of the German Commercial Code (HGB) is limited to determining whether the disclosures have been made.

Declaration of conformity with the German Corporate Governance Code by the Executive Board and Supervisory Board of MTU Aero Engines AG, in accordance with Section 161 of the German Stock Corporation Act (AktG)

In December 2024, the Executive Board and the Supervisory Board declared that the recommendations of the Government Commission on the German Corporate Governance Code, as published in the amended version of April 28, 2022, by the Federal Ministry of Justice in the official section of the Federal Gazette, have been and are being complied with in their entirety. This declaration is updated as follows:

Code recommendation B.3: The initial appointment of members of the management board should be for a maximum of three years.

In deviation from the aforementioned recommendation of the Code, Dr. Johannes Bussmann has been appointed to the Executive Board for a period of five years upon the departure of the current CEO. As in the past, the duration of an initial appointment is determined by the Supervisory Board on a case-by-case basis and in the best interests of the company.

In the view of the Supervisory Board, the duration of the initial appointment is in the best interests of the company in view of Dr. Bussmann's qualifications and experience, as well as to ensure a stable management structure and the implementation of long-term strategic goals.

Apart from that, the previous declaration of conformity continues to apply without restriction.

Munich, December 2024

On behalf of the Executive Board

Lars Wagner
Chief Executive Officer

On behalf of the Supervisory Board

Gordon Riske
Chairman

Responsible corporate management

Responsible corporate management is very important to MTU Aero Engines AG. With one exception, the company therefore complies with all the recommendations of the German Corporate Governance Code (GCGC). The term "corporate governance" stands for the management and oversight of a company in accordance with the principles of responsibility and long-term value creation. MTU sees good corporate governance as a natural responsibility that embraces every area of the company. That comprises mutual trust and efficient collaboration between the Executive Board and the Supervisory Board, respect for the shareholders' interests and open and transparent communication with all stakeholders. As a company with global operations, MTU acts in compliance with the relevant national and international standards. In Germany, where the company has its headquarters, these standards are laid down principally in the Stock Corporation Act (AktG), the Codetermination Act (MitbestG) and the GCGC.

The Executive Board and Supervisory Board closely examined the GCCG during the past fiscal year. This report has been compiled in compliance with the applicable version of the GCGC dated April 28, 2022. A full description of management practices that extend beyond statutory requirements is also provided in this section of the Annual Report.

Corporate management

Accepting responsibility – not only for its products and processes, employees, customers and partners, but in equal measure for the environment and society as a whole – forms an integral part of MTU's corporate culture. Alongside long-term business targets, its corporate strategy therefore gives appropriate consideration to ecological and social objectives. MTU is committed to sustainable development; its contribution – where possible – goes beyond the minimum statutory requirements. The principal focus areas of MTU's social commitment are environmental protection, a fair human resources policy, and community outreach projects in the neighborhoods of its sites. These commitments are publicly documented on the MTU website at *www.mtu.de under About us > Corporate responsibility*.

The company has a Code of Conduct, which has to be observed by all employees. The Code of Conduct can be downloaded from the company's website at *www.mtu.de under About us > Compliance > Our compliance culture*.

MTU attaches great importance to maintaining an open, ongoing dialogue with its stakeholders. The company communicates with these groups via many channels, including the intranet and internet, social media, brochures, employee and customer magazines as well as at events. The aim is to generate broad public acceptance of the company and its products and services.

MTU insists on the finest quality for its products and services. Compliance with quality standards is verified by the relevant authorities and through internal and external audits. The quality standards are published on the *MTU website under Engines > Quality*.

Trust-based cooperation among governing bodies

MTU is a stock corporation organized under German law. Its governing bodies are the Executive Board, the Supervisory Board and the Annual General Meeting. The close cooperation between the Executive Board and the Supervisory Board is based on trust and on intensive, ongoing sharing of information. The Annual General Meeting, in particular, offers shareholders the opportunity to put questions to MTU executives and to exercise their voting rights.

Working procedures of the Executive Board

The goal of the Executive Board in managing MTU is to create, on its own responsibility and in the company's interest, sustainable added value, taking into account the interests of its shareholders, employees and other stakeholders. The Executive Board works as a team, with its members bearing joint responsibility. The members of the Executive Board regularly discuss important actions and events within their respective remits. Their differing qualifications and professional experience are complementary. The company's Executive Board consisted of four members in 2024.

The Supervisory Board is briefed by the Executive Board in a regular, timely and comprehensive manner on the situation of the company, especially in thematically specific meetings of the Supervisory Board and Audit Committee at intervals throughout the fiscal year. The meetings address the company's strategy, the status of planning, the achievement of targets, the company's risk situation and its risk management activities. In accordance with its rules of procedure, the Executive Board coordinates decisions of a material strategic nature with the Supervisory Board, ensures that such decisions are implemented and discusses the progress made. To ensure the flow of information on the company's results of operations, financial position and net assets, the Executive Board has set up a process in which the Supervisory Board receives reports on a monthly basis. Any deviations from the planned operational performance are explained in detail to the Supervisory Board. Furthermore, the Chairman of the Supervisory Board is briefed regularly and in person on the company's current situation, significant business transactions and important pending decisions.

The Executive Board also receives regular reports on compliance, i.e., on the measures taken to comply with laws and regulations as well as with company guidelines and the topics of the non-financial reporting.

Material decisions by the Executive Board, especially those concerning operational planning, require the approval of the Supervisory Board. The Supervisory Board provides information on its work in the *Report of the Supervisory Board* in this Annual Report. The Executive Board's rules of procedure, along with the list of transactions by MTU Aero Engines AG requiring Supervisory Board approval, are published on the company's website at *About us > Corporate governance > Guidelines and reports > Articles of association*.

In line with the recommendation of the GCGC, the Supervisory Board has set an age limit for the members of the Executive Board. Appointment or extension of the appointment to the Executive Board is only possible up until the age of 65.

The current Executive Board remuneration system, which was fundamentally revised in 2023 as a response by the Supervisory Board to the declining approval of MTU shareholders and based on its own reform considerations, was submitted to the 2024 Annual General Meeting for approval and adopted with the required majority on May 8, 2024. The remuneration of the Executive Board for the 2024 fiscal year can be found in the *section headed Management compensation report and on MTU's website at About us > Corporate governance > Guidelines and reports > Management compensation report 2024*.

Working procedures of the Supervisory Board

In line with statutory requirements, the Supervisory Board comprises six shareholder representatives and six employee representatives. The Supervisory Board appoints the Executive Board and monitors and advises it in the management of the company's business. In 2010 the Supervisory Board resolved to appoint new members to the Executive Board for a term of three years. In deviation from the recommendation of the German Corporate Governance Code, Dr. Johannes Bussmann has been appointed to the Executive Board for a period of five years upon the departure of the current Chief Executive Officer. As in the past, the duration of an initial appointment is determined by the Supervisory Board on a case-by-case basis and in the best interests of the company.

Fundamental strategic and economic decisions require Supervisory Board approval. All Supervisory Board members are qualified for these tasks and perform their duties properly. The company regularly provides support in the training of Supervisory Board members and is prepared to assume the related costs. In 2024, the members of the Supervisory Board and the Executive Board completed the CSRD training organized by the company. Supervisory Board members undertook their other training independently in 2024.

All members of the Supervisory Board make sure that they have sufficient time to perform their tasks. The statutory limits on the number of mandates and the upper limit of two supervisory board mandates for members of the executive board of a publicly listed company and five supervisory board mandates for other members recommended by the GCGC are taken into account.

In compliance with the GCGC, in 2024 only one former member of the Executive Board of MTU Aero Engines AG, namely Dr. Rainer Martens, had a seat on the Supervisory Board; the GCGC recommends no more than two. The Supervisory Board is responsible for regularly assessing the independence of its own members, especially the shareholder representatives. As a matter of principle, it considers the employee representatives to be independent. It considers that the Supervisory Board is independent if the majority of its members and the majority of the shareholder representatives are considered to be independent. In its present composition, this applies to all twelve members of the Supervisory Board. It also applied to shareholder representative Dr. Joachim Rauhut (member of the Supervisory Board until May 8, 2024) who was a member of the Supervisory Board of MTU for more than 12 years. The period for which members have served on the Supervisory Board is published in their resumes on the company's website. Given the nature of MTU's business model and the lifecycle of its engines, which is 30 to 40 years in some cases, and the high initial capital expenditure involved, the Executive Board and the Supervisory Board consider long-serving members of the Supervisory Board to be an especially valuable asset to the company and do not take the view that they must necessarily be deemed insufficiently independent after a tenure of 12 years based on this fact alone. At its meeting in December 2023, the Supervisory Board set 12 years as the maximum period for membership of the Supervisory Board and considers this to be appropriate for MTU. There are no other indications that the members of the Supervisory Board of MTU lack independence. In this way, independent advice and oversight of the Executive Board is ensured by both the full Supervisory Board and its committees.

The Supervisory Board's rules of procedure provide for the establishment of committees. The Supervisory Board of MTU has four committees: an Audit Committee, a Personnel Committee, a Mediation Committee and a Nomination Committee. The members of the Audit Committee are Ute Wolf (Chair since May 8, 2024), Dr. Joachim Rauhut (Chair until May 8, 2024), Dr. Christine Bortenlänger, Josef Mailer and Claudia Sowa-Frank. The members of the Personnel Committee and the Mediation Committee are Gordon Riske (Chair), Ute Wolf (since May 8, 2024), Dr. Joachim Rauhut (until May 8, 2024), plus the employee representatives Josef Mailer and Daniele Frijia. The members of the Nomination Committee are Gordon Riske (Chair), Ute Wolf (since May 8, 2024) and Dr. Joachim Rauhut (until May 8, 2024). The Chair of the Audit Committee, Ute Wolf, has many years of professional and management experience in various German and foreign industrial companies, most recently as CFO of Evonik AG. As a result she has a special understanding of the areas of accounting and auditing within the meaning of Section 100 (5) AktG and therefore meets the requirements for an independent financial expert. Dr. Christine Bortenlänger, who is a member of the Audit Committee, is, in accordance with the same provision, qualified as an independent financial expert in the area of auditing thanks to many years as a member of the Management Board of Bayerische Börse AG and as a former Managing Director of the public stock exchange in Munich (until June 30, 2024), as well as many years of experience as a member of various supervisory boards and audit committees. Both committee members have in-depth knowledge and experience of internal control processes, in other words, risk and compliance management, the internal control system and internal auditing.

Further details can be found in the section headed The Supervisory Board. In addition, the resumes of the Supervisory Board are published on the company's website at www.mtu.de under About us > Corporate governance > Supervisory Board.

In consultation with the Executive Board, the Supervisory Board ensures long-term succession planning for appointments to the Executive Board. To this end, the Supervisory Board regularly reviews the present term of all Executive Board contracts, taking into account the age of each member, the competency profile of potential candidates and the defined diversity objective for the Executive Board.

The Supervisory Board's rules of procedure contain binding provisions for dealing with conflicts of interest. Such conflicts must be disclosed and, where appropriate, may result in termination of the member's term of office. In addition, the Supervisory Board must explicitly state such potential conflicts of interest when submitting the nominations to the Annual General Meeting. There were no conflicts of interest in the reporting period. With the exception of a consulting agreement between a Supervisory Board member and a supplier of the company, there were no consulting agreements, contracts for services or similar contractual agreements between members of the Supervisory Board and MTU Aero Engines AG or any of its subsidiaries, or with customers, suppliers, lenders or other third parties in 2024. If there are any discussions or resolutions affecting this supplier in future – this was not the case during the reporting period – the Supervisory Board member concerned will not take part in them.

The Supervisory Board has defined specific targets for its composition in a competence profile and drawn up a qualifications matrix showing the current status. Importance is attached to diversity. The competence profile forms the basis for all nominations submitted to the Annual General Meeting. It is published on MTU's website. Nominations submitted by the Supervisory Board to the Annual General Meeting take account of all objectives and also strive to comply with the competence profile for the Supervisory Board as a whole.

MTU's Supervisory Board should be made up of personalities who, in their entirety, provide a range of competences which ensure comprehensive and effective consultancy to and supervision of the Executive Board with regard to the whole gamut of MTU's business activities, including its strategy and approach to new societal and technological challenges. In the opinion of the Supervisory Board, essential elements of this range of competences should include:

- Leadership and governance in a two-tier corporate governance system
- CEO experience in publicly listed companies
- Aerospace industry
- Capital market knowledge & value creation & M&A
- Profound knowledge in financial reporting (including sustainability reporting)
- Profound knowledge in auditing of the annual accounts (including review of sustainability reporting)
- Supply chain & operations
- Risk management & compliance
- Marketing & sales
- International experience in respect to relevant markets
- Sustainability (ESG)
- Future-oriented technologies / Digitalization & IT

In addition to the following qualifications matrix, the resumes of the Supervisory Board members contain details of their main experience and competencies. These are available on *MTU's website at About us > Supervisory Board*.

Qualifications matrix for the Supervisory Board of MTU Aero Engines AG

		Gordon Riske	Josef Mailer	Dr. Christine Bortenlänger	Dr. Johannes Bussmann	Kai Eisenblätter	Daniele Frijia	Dr.-Ing. Marc Haltrich	Anita Heimerl	Dr. Rainer Martens	Claudia Sowa-Frank	Univ.-Prof. Dr. Marion A. Weissenberger-Eibl	Ute Wolf
Professional competence	Leadership and governance in a two-tier corporate governance system	•	•	•	•		•			•	•	•	•
	CEO experience in publicly listed companies	•			•								
	Aerospace industry		•		•	•		•	•	•			
	Capital market knowledge & value creation & M&A	•		•	•					•			•
	Supply Chain & Operations		•		•					•	•	•	•
	Risk management & compliance	•		•	•						•		•
	Marketing & sales			•	•								
	International experience in respect to relevant markets	•			•					•			
	Sustainability (ESG)	•		•			•			•	•	•	•
	Future-oriented technologies				•					•		•	
	Digitalization & IT	•			•		•					•	•
Financial expertise	Expert in financial reporting (including sustainability reporting)												•
	Expert in auditing of the annual accounts (including review of sustainability reporting)			•									•
Term of office	Initial appointment	2022	2015	2018	2024	2023	2022	2023	2018	2021	2023	2013	2023
End of term of office		2026	2028	2027	2028	2028	2028	2028	2028	2025	2028	2024	2027
Personal suitability	Independence	•	•	•	•	•	•	•	•	•	•	•	•
	Time availability	•	•	•	•	•	•	•	•	•	•	•	•
	No overboarding	•	•	•	•	•	•	•	•	•	•	•	•
Diversity/ internationality	Gender	M	M	W	M	M	M	M	W	M	W	W	W
	Year of birth	1957	1964	1966	1969	1974	1981	1967	1964	1961	1987	1966	1968
	Nationality	D / USA	D	D	D	D	D	D / CAN	D	D	D	D	D
	International experience	•			•			•		•	•	•	•

In the past financial year, directors' and officers' liability insurance was in effect for the members of MTU's Executive Board and Supervisory Board. The compensation of the members of the Executive Board and Supervisory Board is based on clear and transparent criteria. These are described in the *section headed Management compensation report*, and on *MTU's website at About us > Corporate governance > Guidelines and reports > Management compensation report 2024*.

The Supervisory Board regularly assesses how effectively the Supervisory Board as a whole and its committees perform their tasks. In fiscal year 2024, the Supervisory Board conducted a self-assessment of the work in plenary session, with the aid of an external consultant. This comprised individual talks with each Supervisory Board member and with the Executive Board. Special attention was paid to strategic challenges, the organization of and information provision to the Supervisory Board, the composition of the Supervisory Board and its committees, committee activities, cooperation with the Executive Board and management, the discussion culture and conflict resolution potential. Benchmarking against a selected peer group of companies was also used. The results were presented at the meeting of the Supervisory Board and the Audit Committee on December 9, 2024. They form the basis for the ongoing development of the work of the Supervisory Board and for its competence profile. The Supervisory Board considered its work to be efficient and only adopted a few specific measures to improve the organization of its work.

The above-mentioned effectiveness review with the help of an external consultant also examined the activities of the Audit Committee. The Audit Committee's self-assessment focused in particular on the professional composition of the committee, the activities of the committee chairs, cooperation with the auditor and CFO, the handling of regulatory tasks, the implementation of CSRD requirements and the planning and structuring of reporting processes. The members of the Audit Committee considered the work of the committee to be conducted efficiently and adopted some specific measures to enhance the organization of its work.

Diversity

The diversity of its employees plays a key role in MTU's success. Therefore, diversity is very important to MTU.

In the context of the German law on equal participation of women and men in leadership positions, MTU has set itself goals. In accordance with Section 111 (5) of the German Stock Corporation Act (AktG), the supervisory boards of publicly listed companies and companies that are subject to the German Codetermination Act (MtibestG) are required to set target quotes for women on their supervisory and executive boards. In addition, under Section 76 (4) of the German Stock Corporation Act (AktG) the Executive Board is required to set a target quota for women at the two management levels directly below the Executive Board.

Diversity also plays an important role in the composition of the Supervisory Board. In compliance with both the German Stock Corporation Act (AktG) and the GCGC, the supervisory boards of listed companies subject to the German Codetermination Act (MitbestG) must comprise at least 30% women and at least 30% men. The Supervisory Board has five female members: Dr. Christine Bortenlänger, Anita Heimerl, Claudia Sowa-Frank, Univ.-Prof. Dr. Marion A. Weissenberger-Eibl and Ute Wolf. The other seven members are men. Two women are employee representatives and three are shareholder representatives. The percentage of women on the Supervisory Board was therefore unchanged in 2024, with female representation of 41.7% and male representation of 58.3%.

In addition, the Supervisory Board has set the following goal: International focus is very important for MTU as a global corporation. At least one member of the Supervisory Board should therefore meet the criterion of "internationality." It is already the case that various members of MTU's present Supervisory Board trained or have spent a large part of their professional lives abroad. The members of the Supervisory Board should continue to contribute an international perspective.

The Supervisory Board takes the above-mentioned goals into account when submitting proposals for election by the Annual General Meeting. The same applies to the Nomination Committee, which is responsible for preparing the vote of the Supervisory Board. Since the main criterion for any proposal is still the company's interest, the Supervisory Board proposes the most suitable candidates.

The Supervisory Board's rules of procedure set an age limit for members. Their terms on the Supervisory Board automatically end at the end of the Annual General Meeting following the member's 75th birthday. Moreover, a general limit of twelve years has been set for membership of the Supervisory Board.

The Supervisory Board also places value on fostering diversity in appointments to the Executive Board. The members of the Executive Board have diverse qualifications and work experience, which contribute to their work. In accordance with the provisions of the German Stock Corporation Act (AktG) and the German Corporate Governance Code (GCGC), the Supervisory Board set a target quota of 25% for female members of the Executive Board.

With the appointment of Dr. Silke Maurer as a member of the Executive Board with responsibility for OEM Operations and as Chief Operating Officer (COO) of MTU with effect from February 1, 2023, the target of 25% female members was achieved. The Supervisory Board has appointed Dr. Silke Maurer to the company's Executive Board for a three-year term of office. In the reporting period, MTU's Executive Board therefore consisted of three men and one woman.

For the management levels below the Executive Board, the Executive Board had set a target quota of 15% (three women) for the first management tier and 20% (18 women) for the second tier, to be achieved by June 30, 2027. As of December 31, 2024 (based on modified reference base), the proportion of women in the first management tier was 8.7% (two women) and the proportion in the second tier was 15.5% (20 women). In view of the pleasing development of the proportion of women in the second management tier, the Executive Board set a new target for this level in 2024, earlier than had been planned. The new target for the second-tier level of management (below the Executive Board) is now 22% or 26 women by December 31, 2027. MTU was able to realize some of the potential effectively, but not in equal measure in all units. In recent years, various initiatives have been introduced to increase the proportion of women in management positions (mentoring, establishment of the Network of Engine Women, etc.); these should have a greater impact in the medium term.

MTU is continuing to pursue its goal of increasing the number of women on all levels. Every area of the company is called upon to work actively toward achieving this corporate objective. The measures focus on recruiting more female potentials and providing more intensive support for female employees during their careers. To this end, MTU invests extensively in the development of its female employees and is involved in mentoring programs and a variety of initiatives. In addition, MTU has an active network for women, with Lars Wagner, CEO, as its advocate, and extensive measures to improve work-life balance, including flexible working hours, support services for families, and scope for teleworking. A full description of diversity management at MTU Aero Engines AG can be found in the current Sustainability report.

Accounting

MTU prepares its consolidated financial statements and interim reports in accordance with the International Financial Reporting Standards (IFRSs). The Executive Board is responsible for the financial statements and reports. Financial reporting comprises, in particular, the consolidated financial statements and the Group management report (including the Sustainability Statement). In addition, the financial reporting and the audit include sustainability reporting, together with the audit thereof. The annual financial statements of MTU Aero Engines AG are compiled in accordance with the provisions of the German Commercial Code (HGB). An internal control system, coupled with the application of uniform accounting policies, should ensure that the results of operations, financial position, net assets and cash flows of all Group companies are accurately presented. In addition, MTU has a differentiated system in place to identify and monitor business and financial risks.

Risk management and control system

The aim of the Executive Board is to ensure that the company has an appropriate and effective risk management and control system. To this end, the Group's risk and opportunity situation and how it is determined are evaluated at an Executive Board meeting at least once a quarter; moreover, every six months, the status of the internal control system is discussed and an overall assessment of its appropriateness and effectiveness is made. Based on this, the Executive Board has not found any indication that either the overall entire risk management system or the overall internal control system might not be appropriate or effective. MTU takes findings and suggestions for optimization resulting from audits by the Internal Group Audit function and external audits as an opportunity to make continuous improvements to the risk management system and internal control system. The systems are described in the *section headed Internal control and risk management system*.

The Executive Board reports to the Supervisory Board in a regular and timely manner on existing opportunities and risks, and how they are developing. The Audit Committee of the Supervisory Board discusses risk management. In accordance with Section 107 (3) of the German Stock Corporation Act (AktG), the Audit Committee is explicitly responsible for monitoring the appropriateness and effectiveness of the risk management system, the internal control and auditing systems, the financial reporting process and the audit of the financial statements, and in particular, for assessing the auditors' independence.

Compliance

The corporate culture at MTU is characterized by trust and mutual respect. The observance of legal rules and principles plays a central role in this respect. The resulting binding requirements for employees are documented in MTU's Code of Conduct, which was revised, agreed and introduced jointly by the Executive Board and the Group Works Council in 2022. MTU's Code of Conduct embodies the corporate culture and reflects MTU's resolve to comply strictly with the relevant laws and internal regulations. It is a Group-wide guide to lawful and ethical business relations.

Nevertheless, the risk can never be entirely ruled out that unauthorized behavior of isolated individuals might lead to contravention of the law. MTU does everything in its power to minimize this risk as far as possible, and is committed to preventing acts of misconduct, such as corruption, in the first place through corresponding rules and regular and targeted training, and to uncovering and pursuing any such acts.

Compliance is an important aspect of all management functions at MTU. Managers must check that every member of their staff is familiar with the Code of Conduct and abides by its rules. Reinforcement is provided by internal training.

The central contact for the prevention of white-collar crime in the company is the Compliance Officer, who is a member of the corporate management and reports directly to the Executive Board. The duties of the Compliance Officer focus, first and foremost, on preventing corruption and failure to comply with cartel and insider regulations. The Compliance Officer advises the Executive Board, managers and the managing directors of the individual sites, draws up training concepts and guidelines and makes recommendations on compliance checks. In addition, the Compliance Officer leads any investigations into cases of suspected non-compliance and coordinates the measures taken. The Compliance Officer also acts as the contact for reporting misconduct in accordance with the German Whistleblower Protection Act (Hinweisgeberschutzgesetz). Both employees and third parties such as customers and suppliers can report suspected non-compliance issues to the Compliance Officer confidentially. As well as being able to contact the Compliance Officer personally through various channels, they have access to iTrust, a web-based whistleblower system that also allows anonymous reports.

Reports on the Compliance Officer's activities are presented to the Supervisory Board's Audit Committee. The Audit Committee then informs the plenary meetings of the Supervisory Board via a summary of its own meetings. It supervises the Executive Board's compliance activities, including monitoring the measures and training programs implemented by the Compliance Officer and proposing revisions to the compliance rules.

Extensive information, Annual General Meeting, Directors' Dealings

In keeping with the principles of good corporate governance, MTU continually provides extensive and timely information on the company's activities and any major developments in its business situation for shareholders, shareholder associations, financial analysts, the media and other interested parties. MTU strives to ensure that all stakeholders are kept informed in equal measure. Within reason, the Chair of the Supervisory Board is also prepared to meet with investors to talk about topics specific to the Supervisory Board, and did so at a number of virtual meetings in 2024. The company publishes an extensive range of information on its website at *www.mtu.de*. It publishes quarterly information on its business activities. Any new developments that are not public knowledge but are likely to have a significant impact on the MTU share price are disclosed in the form of ad-hoc releases in accordance with statutory requirements.

Information is also posted on the MTU website whenever members of the Executive Board or Supervisory Board or related persons have purchased or sold MTU shares, debt instruments or share-based derivatives. Section 19 of the European Market Abuse Regulation stipulates that these persons must disclose such transactions if their value in a single calendar year reaches or exceeds €20,000. The total number of shares in MTU Aero Engines AG, Munich, held by members of the company's Executive Board and Supervisory Board as of December 31, 2024, was less than 1% of the company's capital stock.

In view of the highly international shareholder structure and in the interests of environmental and climate protection, MTU considers a modern format for its Annual General Meeting to be appropriate as it enables global participation of shareholders without the need to travel while also enabling them to fully exercise their rights as shareholders and to follow the entire Annual General Meeting, including the general discussion, as a live video and audio stream. MTU therefore decided, in accordance with legal and statutory requirements, to hold a virtual Annual General Meeting again in 2024. At this virtual Annual General Meeting, shareholders were able to request information pursuant to Section 118a (1) sentence 2 no. 4 of the German Stock Corporation Act (AktG) via electronic communication channels during the meeting.

The company supports the exercise of shareholder rights and proxy voting by its shareholders in part by providing voting representatives who exercise voting rights in accordance with instructions received from individual shareholders. Shareholders also have the option of absentee voting. Shareholders can use electronic means to authorize proxies and provide voting instructions to the company's voting representatives even during the Annual General Meeting.

Legislation on the introduction of virtual annual general meetings at joint stock companies came into force on July 27, 2022. Joint stock companies can now choose whether a virtual format is preferable to an in-person meeting or whether a hybrid format is an alternative. MTU has decided that it will hold its Annual General Meeting in 2025 as a virtual Annual General Meeting again.

Besides cost and efficiency benefits of a virtual meeting, key considerations for the Executive Board were that it facilities simple access for all MTU shareholders, not just its national shareholders, and sustainability aspects.

Furthermore, the agenda for the Annual General Meeting 2025 does not contain any items that would require a physical presence at the meeting. MTU is convinced that holding the Annual General Meeting in virtual format safeguards shareholders' rights of participation and scope for good interaction between the company and its shareholders in full and without any compromises compared to an in-person Annual General Meeting.

The declaration of conformity is published in *MTU's website at About us > Corporate governance > Guidelines and reports > Compliance statement*.

Consolidated financial statements

Notes to the consolidated financial statements 238

Consolidated income statement

Consolidated income statement

in € million	(Note)	2024	2023
Revenue	**(1.)**	**7,411**	**5,363**
Cost of goods sold	(2.)	-6,178	-5,245
Gross profit		**1,233**	**118**
Research and development expenses	(3.)	-106	-114
Selling expenses	(4.)	-138	-141
General administrative expenses	(5.)	-128	-109
Other operating income	(6.)	38	43
Other operating expenses	(6.)	-59	-57
Profit/loss of companies accounted for using the equity method and of equity investments	(7.)	115	99
Earnings before interest and taxes (EBIT)		**955**	**-161**
Net interest income/expense	(8.)	-22	-12
Other financial income/expense	(9.)	-38	-32
Net financial income/expense		**-60**	**-45**
Earnings before income taxes		**895**	**-205**
Income taxes	(10.)	-253	108
Net income		**642**	**-97**
thereof:			
owners of MTU Aero Engines AG		633	-102
non-controlling interests		9	5
Earnings per share (in €)			
Basic (EPS)	(11.)	11.77	-1.90
Diluted (DEPS)	(11.)	11.53	-1.90

Consolidated statement of comprehensive income

Consolidated statement of comprehensive income

in € million	(Note)	2024	2023
Net income		**642**	**–97**
Currency translation differences arising from the financial statements of foreign entities		48	–10
Financial instruments designated as cash flow hedges		–79	91
Items that may subsequently be recycled to profit or loss		–32	81
Actuarial gains/losses on pension obligations and plan assets		7	–34
Item that will not be recycled to profit or loss		7	–34
Other comprehensive income after taxes	**(24.)**	**–25**	**47**
thereof:			
owners of MTU Aero Engines AG		–30	50
non-controlling interests		5	–3
Total comprehensive income		**617**	**–50**
thereof:			
owners of MTU Aero Engines AG		603	–52
non-controlling interests		14	2

Consolidated balance sheet – assets

Assets

in € million	(Note)	Dec. 31, 2024	Dec. 31, 2023
Non-current assets			
Intangible assets & Goodwill	(13.)/(14.)	1,313	1,200
Property, plant and equipment	(13.)/(15.)	1,767	1,501
Financial assets accounted for using the equity method	(16.)	727	643
Other financial assets	(16.)	103	132
Acquired program assets, development work and other assets	(17.)	722	800
Deferred taxes	(34.)	333	328
Total non-current assets		**4,965**	**4,604**
Current assets			
Inventories	(19.)	1,753	1,629
Trade receivables	(20.)	1,665	1,010
Contract assets	(21.)	1,325	1,248
Income tax receivables	(22.)	63	81
Other financial assets	(16.)	885	679
Other assets	(17.)	83	68
Cash and cash equivalents	(23.)	1,747	883
Total current assets		**7,519**	**5,599**
Total assets		**12,484**	**10,204**

Consolidated balance sheet – equity and liabilities

Total equity and liabilities

in € million	(Note)	Dec. 31, 2024	Dec. 31, 2023
Equity	**(24.)**		
Subscribed capital		54	54
Capital reserves		577	579
Retained earnings		2,936	2,407
Treasury shares		-8	-11
Accumulated other comprehensive income		-195	-166
Owners of MTU Aero Engines AG		**3,363**	**2,863**
Non-controlling interests		74	70
Total equity		**3,438**	**2,933**
Non-current liabilities			
Pension provisions	(25.)	692	713
Other provisions	(27.)	33	28
Financial liabilities	(28.)	2,265	1,495
Contract liabilities	(30.)	3	3
Other liabilities	(32.)	4	19
Deferred taxes	(34.)		
Total non-current liabilities		**2,997**	**2,258**
Current liabilities			
Pension provisions	(25.)	32	30
Income tax liabilities	(26.)	35	37
Other provisions	(27.)	158	129
Refund liabilities	(31.)	3,305	3,242
Financial liabilities	(28.)	1,051	395
Trade payables	(29.)	504	325
Contract liabilities	(30.)	845	735
Other liabilities	(32.)	119	120
Total current liabilities		**6,049**	**5,013**
Total equity and liabilities		**12,484**	**10,204**

Consolidated statement of changes in equity

Consolidated statement of changes in equity

in € million	Subscribed capital	Capital reserves	Retained earnings	Treasury shares	Accumulated other comprehensive income			**Owners of MTU Aero Engines AG**	Non-controlling interests	**Total equity**
					Currency translation differences arising from the financial statements of foreign entities	Actuarial gains/losses[1]	Financial instruments designated as cash flow hedges			
Carrying amount as of Jan. 1, 2023	**53**	**531**	**2,680**	**-13**	**32**	**-170**	**-77**	**3,034**	**72**	**3,107**
Net income			-102					-102	5	-97
Other comprehensive income					-7	-34	91	50	-3	47
Total comprehensive income			**-102**		**-7**	**-34**	**91**	**-52**	**2**	**-50**
Dividend payment			-171					-171	-3	-174
Changes in equity due to portfolio transactions [2]			0					0	-1	-1
Convertible bond 2016	0	45						46		46
Restricted Stock Plan		3		2				6		6
Carrying amount as of Dec. 31, 2023	**54**	**579**	**2,407**	**-11**	**24**	**-204**	**14**	**2,863**	**70**	**2,933**
Net income			633					633	9	642
Other comprehensive income					43	7	-79	-30	5	-25
Total comprehensive income			**633**		**43**	**7**	**-79**	**603**	**14**	**617**
Dividend payment			-108					-108	-9	-117
Changes in equity due to portfolio transactions [2]			3					3	0	4
Restricted Stock Plan (LTI)		-2		3				1		1
Carrying amount as of Dec. 31, 2024	**54**	**577**	**2,936**	**-8**	**68**	**-197**	**-65**	**3,363**	**74**	**3,438**

[1] Refers to pension obligations and plan assets

[2] Refers to purchases and sales of participations or capital measures.

Consolidated cash flow statement

Consolidated cash flow statement

in € million	(Note)	2024	2023
Operating activities			
Net income		642	-97
Non-cash amortization (including impairment) of capitalized program assets and acquired development work		137	50
Amortization, depreciation, write-ups and impairment of other non-current assets		346	282
Profit/loss of companies accounted for using the equity method	(7.)	-122	-97
Profit/loss of equity investments	(7.)	7	-2
Dividends received		76	56
Gains/losses on the disposal of assets		-3	1
Result effective change in pension provisions	(25.)	-9	-14
Change in other provisions	(27.)	35	-32
Change in refund liabilities (not included in working capital)	(31.)	188	1,010
Change in working capital [1]		-696	-81
Other non-cash items		40	34
Net interest income/expense	(8.)	22	12
Interest paid		-35	-28
Interest received		39	29
Income taxes	(10.)	253	-108
Income taxes paid		-206	-237
Cash flow from operating activities		**714**	**777**
Investing activities			
Capital expenditure on:			
Intangible assets	(14.)	-181	-80
Property, plant and equipment	(15.)	-459	-332
Financial assets	(16.)	-23	-33
Acquired program assets, development work and other assets		-33	-21
Proceeds from disposal of:			
intangible assets/property, plant and equipment	(14.) / (15.)	58	30
other financial assets	(16.)	35	16
Cash flow from investing activities		**-603**	**-420**
Financing activities			

in € million	(Note)	2024	2023
Cash inflow from other bonds and notes	(28.)	1,041	
Cash outflow from other bonds and notes	(28.)		–0
Settlement of lease liabilities	(28.)	–69	–81
Settlement of purchase price liabilities for stakes in programs		–41	–44
Increase in other financial liabilities	(28.)	4	7
Repayment of other financial liabilities	(28.)	–82	
Dividend paid to shareholders of MTU AG/ to non-controlling interests		–117	–174
Capital repayment/ increase		0	–1
Cash flow from financing activities		**736**	**–294**
Net change in cash and cash equivalents during the reporting period		**846**	**64**
Effect of currency translation differences on cash and cash equivalents		17	–3
Cash and cash equivalents at beginning of period		883	823
Cash and cash equivalents as of Dec. 31		**1,747**	**883**

[1] As far as cash effective.

Consolidated segment report

Consolidated segment report

in € million	Commercial and military engine business (OEM segment) 2024	Commercial and military engine business (OEM segment) 2023	Commercial maintenance business (MRO segment) 2024	Commercial maintenance business (MRO segment) 2023	Total reportable segments 2024	Total reportable segments 2023	Consolidation/ reconciliation 2024	Consolidation/ reconciliation 2023	MTU Group 2024	MTU Group 2023
External revenue	2,379	1,181	5,032	4,183	7,411	5,363			7,411	5,363
Revenue from intersegment sales	74	69	35	42	109	111	–109	–111		
Total revenue	**2,454**	**1,249**	**5,066**	**4,225**	**7,520**	**5,474**	**–109**	**–111**	**7,411**	**5,363**
Adjusted revenue	2,531	2,212	5,066	4,225	7,597	6,437	–109	–111	7,488	6,326
Gross profit	**745**	**–266**	**485**	**383**	**1,231**	**117**	**2**	**1**	**1,233**	**118**
Amortization of intangible assets	55	50	9	8	64	58			64	58
Depreciation of property, plant and equipment	126	115	132	102	258	218			258	218
Non-cash amortization of capitalized program assets and acquired development work	125	50			125	50			125	50
Impairment losses	31		1	6	32	6			32	6
Amortization/value adjustments/depreciation/impairment losses	**336**	**215**	**142**	**116**	**478**	**331**			**478**	**331**
Earnings before interest and taxes (EBIT)	**517**	**–508**	**438**	**346**	**955**	**–162**	**–0**	**1**	**955**	**–161**
thereof: special item "effects of purchase price allocation"	18	18	0	0	19	19			19	19
thereof: special item "effects from increase in the stake in IAE-V2500"	25	23			25	23			25	23
thereof: special item "GTF™ fleet management plan"	52	932			52	932			52	932
thereof: special item "material aperiodic contribution to earnings (impairment losses of assets due to Russia-Ukraine war)				–21		–21				–21
thereof: special item "material aperiodic contribution to earnings" (provision for consortial major litigation and claims)		23		3		26				26
Adjusted earnings before interest and taxes (adjusted EBIT)	**612**	**488**	**438**	**329**	**1,051**	**817**	**–0**	**1**	**1,050**	**818**
Profit/loss of companies accounted for using the equity method	40	27	82	70	122	97			122	97
Carrying amount of companies accounted for using the equity method	342	305	385	338	727	643			727	643
Assets	**10,684**	**8,802**	**3,866**	**3,273**	**14,550**	**12,075**	**–2,066**	**–1,871**	**12,484**	**10,204**
Liabilities	**7,885**	**6,375**	**2,611**	**2,267**	**10,496**	**8,642**	**–1,449**	**–1,371**	**9,046**	**7,271**

	Commercial and military engine business (OEM segment)		Commercial maintenance business (MRO segment)		Total reportable segments		Consolidation/ reconciliation		MTU Group	
in € million	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023
Material other non-cash items	**34**	**2**	**6**	**31**	**40**	**34**			**40**	**34**
Capital expenditure:										
Intangible assets	83	78	100	4	183	82		-0	183	82
Property, plant and equipment	263	218	340	211	603	429	5		608	429
Acquired program assets, development work and other assets	53	25			53	25			53	25
Total capital expenditure	**398**	**321**	**440**	**215**	**839**	**536**	**5**	**-0**	**844**	**536**
Key segment data:										
EBIT (in % of revenue)	21.1	-40.7	8.7	8.2	12.7	-3.0			12.9	-3.0
Adjusted EBIT (in % of revenue)	24.2	22.1	8.7	7.8	13.8	12.7			14.0	12.9

The key indicator used by management to measure the operating performance of each segment is adjusted earnings before interest and taxes (adjusted EBIT).

Intersegment sales are transacted at arm's length at standard market terms and invoiced in the same way as transactions with external third parties. The material other non-cash items in the reporting period included gains arising from foreign currency translation.

In the reporting period, three major customers each accounted for more than 10% of total Group revenue. Business with the largest customer generated revenue of 1,832 million (previous year: €724 million), €967 million (previous year: €721 million) with the second-largest customer, and €949 million (previous year: €840 million) with the third largest customer.

The revenue from the largest customers stemmed from both segments.

For more information on segment reporting, please see *section V. Segment information*.

I. Accounting principles and policies

Principles and methods

The business activities of MTU Aero Engines AG, Munich, Germany, and its consolidated companies (subsequently referred to as the Group, Group companies or MTU) extend over the entire lifecycle of an engine program – from development, structural design, testing and manufacturing of new commercial and military engines and spare parts through to the maintenance, repair and overhaul of commercial and military engines. MTU divides its activities into two operating segments: the commercial and military engine business (OEM) and the commercial maintenance business (MRO).

MTU's commercial and military engine business (OEM segment) covers the development and manufacturing of modules, components and spare parts for engine programs, and in some cases final assembly. The military engine business additionally includes the provision of maintenance services. The MRO segment consists of the commercial maintenance business (MRO), which covers all activities relating to the commercial maintenance, repair and overhaul of commercial engines as well as associated services.

The parent company, MTU Aero Engines AG, which has its registered office at Dachauer Strasse 665, 80995 Munich, Germany, is registered under reference HRB 157 206 in the commercial registry of the district court of Munich.

The consolidated financial statements were approved for publication by the Executive Board of MTU Aero Engines AG, Munich, on March 10, 2025.

MTU's consolidated financial statements were prepared in accordance with the International Financial Reporting Standards (IFRSs) as applicable in the European Union (EU) and the supplementary requirements of Section 315e (1) of the German Commercial Code (HGB). MTU applied all IFRSs issued by the International Accounting Standards Board (IASB) that were in effect at the time these consolidated financial statements were prepared and had been endorsed by the European Commission for use in the EU. Amounts are presented in euros.

The consolidated financial statements have been prepared on a going concern basis. This management assessment is based on the multi-year business planning, taking into account the proven past achievement of the plans and the complementary system for the early identification of risks. Furthermore, the management assessment is supported by the company's future earnings capability, an order backlog covering several years and sound financing combined with high levels of liquidity.

The consolidated financial statements for the period ended December 31, 2024, and the combined management report for fiscal year 2024 were prepared in accordance with Section 315e (1) of the German Commercial Code (HGB) and have been published in the company register.

The fiscal year is identical to the calendar year. Comparative figures for the previous year are included in the consolidated financial statements.

In the presentation of the balance sheet, a distinction is made between non-current and current assets and liabilities. A more detailed maturity analysis of certain items is provided in the notes to the consolidated financial statements. An asset or liability is classified as current if:

- it is held primarily for trading purposes,
- it is generally expected to be realized or repaid respectively within 12 months of the reporting date,
- it is cash or a cash equivalent, unless the exchange or utilization of the asset for the purpose of fulfilling an obligation is restricted for a period of at least 12 months after the reporting date, or
- it comprises a refund liability that arises in the course of MTU's normal operating cycle, even if, in the absence of specific contractual deadlines, effective settlement only takes place after 12 months.

The income statement is prepared using the cost-of-sales method in which revenue is balanced against the expenses incurred to generate it, and expenses are classified by function: production, research and development, distribution, and general administration. The consolidated financial statements are denominated in euros. All amounts are stated in millions of euros (€ million), unless otherwise specified. Due to rounding, some of the rounded figures presented in these consolidated financial statements may not correspond exactly to the sum of the individual figures, and it may not be possible to calculate some of the individual percentages from the rounded absolute figures presented. “0” represents amounts of between zero and half a million euros, while “-0” represents amounts between zero and minus half a million euros. Amounts of exactly €0.00 are shown by an empty field in tables.

Accounting standards, interpretations, and amended standards and interpretations applied for the first time in fiscal year 2024

The following new and amended accounting standards and interpretations were applied for the first time in these consolidated financial statements:

New and amended standards

Standard	Title
IAS 1	Amendment: Classification of Liabilities as Current or Non-current (including Deferral of Effective Date) and Non-current Liabilities with Covenants
IFRS 16	Amendment: Lease Liability in a Sale and Leaseback
IAS 7 and IFRS 7	Amendment: Supplier Finance Arrangements

Application of these standards did not result in any significant changes to the MTU Group's financial reporting.

Accounting standards, interpretations, and amended standards and interpretations issued but not yet applied

The following new and amended standards and interpretations have been issued by the IASB but were not yet effective for annual periods beginning on January 1, 2024:

Accounting standards and interpretations not yet applied

Standard	Title
IAS 21	Amendments: Lack of Exchangeability[1]
IFRS 7 and IFRS 9	Amendments: Classification and Measurement of Financial Instruments; Contracts Referencing Nature-dependent Electricity[2]
IAS 7, IFRS 1, IFRS 7, IFRS 9 and IFRS 10	Amendments: Annual Improvements to IFRS Accounting Standards – Volume 11[2]
IFRS 18	Presentation and Disclosures in Financial Statements[2]
IFRS 19	Subsidiaries without Public Accountability: Disclosures[2]

[1] Effective for annual periods beginning on or after January 1, 2025.
[2] Still awaiting EU endorsement.

MTU does not apply standards, interpretations and amendments before the effective date, taking into account endorsement by the EU.

In view of the MTU Group's current business model, the aforementioned standards are not expected to have a material impact on MTU's financial reporting in future reporting periods. One exception is IFRS 18 Presentation and Disclosure in Financial Statements, which was published in April 2024; from the time of initial application, it will replace IAS 1 Presentation of Financial Statements. The main amendments of IFRS 18 are additional defined subtotals in the income statement, disclosures on management-defined performance measures, as well as new principles for the aggregation and disaggregation of information. The new regulations will also result in amendments to IAS 7 Statement of Cash Flows. This new standard will have to be applied for the first time to fiscal years starting from January 1, 2027. Initial application will have to be retrospective. MTU will not make use of the option of early application. MTU is currently analyzing the specific effects of the initial application of IFRS 18 on the MTU consolidated financial statements.

Application of Section 264 (3) of the German Commercial Code (HGB)

MTU Maintenance Hannover GmbH, Langenhagen, Germany, and MTU Maintenance Berlin-Brandenburg GmbH, Ludwigsfelde, Germany, are consolidated affiliated companies of MTU Aero Engines AG, Munich. These companies apply the exemption in Section 264 (3) of the German Commercial Code (HGB).

Consolidated group

As of December 31, 2024, the Group including MTU Aero Engines AG, Munich, comprised 36 companies. These are presented in the list of major shareholdings in *Note 38. Related party disclosures,* which contains details of the method of inclusion in the consolidated financial statements.

Changes in the consolidated group

In the reporting period, the number of Group companies and equity investments in associates and joint ventures included in the consolidated financial statements changed as follows:

Consolidated group

	Germany	International	Total
Shareholdings as of Dec. 31, 2022	**12**	**21**	**33**
Additions 2023	1		1
Disposals 2023			
Shareholdings as of Dec. 31, 2023	**13**	**21**	**34**
Additions 2024	1	1	2
Disposals 2024			
Shareholdings as of Dec. 31, 2024	**14**	**22**	**36**

On September 11, 2024, Safran Helicopter Engines and MTU Aero Engines established EURA SAS, Bordes, France. The purpose of the company is to develop a new engine for the next generation of heavy European military helicopters. MTU Aero Engines holds 50% of the shares of the company. In addition, on November 5, 2024, MTU Aero Engines AG, Munich, acquired 100% of the shares of 3D.aero GmbH, Hamburg.

Subsidiaries

The consolidated financial statements of MTU Aero Engines AG, Munich, include all material companies in which MTU Aero Engines AG, Munich, has a controlling interest as defined by IFRS 10, in other words entities in which MTU, as the investor, is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

Associates

Associates are companies over which MTU exercises significant influence in accordance with IAS 28 and which are neither subsidiaries nor joint ventures. Stakes in such companies, where MTU is directly or indirectly able to significantly influence decisions on financial and business policy, are included in the consolidated financial statements using the equity method. MTU holds an 18% share in the voting rights of each IAE International Aero Engines LLC, East Hartford, CT, USA, and of PW1100G-JM Engine Leasing LLC, East Hartford, CT, USA. The contractual business relationships, management agreements and representation on governance bodies give MTU significant influence, thus justifying their classification as associates from MTU's perspective.

Joint ventures

Joint ventures are companies over which MTU exercises joint control together with one or more other entities in accordance with IFRS 11. MTU's joint ventures are accounted for in the consolidated financial statements at equity or at (amortized) cost. They are disclosed individually in the list of major shareholdings in *Note 38. Related party disclosures*.

Materiality criterion – Non-material investments

For the purpose of inclusion in the consolidated financial statements (by consolidation or the equity method), the materiality of investments is consistently evaluated using the following criteria:

- Shareholding as a proportion of the total carrying amount of all shares in the affiliated companies
- Relative share of average consolidated annual net income in the past three years (based on the income statement)
- Share of total assets of the affiliated company (based on balance sheet)

As a result of significant capital measures for the purpose of financing its future business development, MTU's subsidiary MTU Maintenance Dallas was included in the consolidated financial statements for the first time in the reporting year.

Consolidation principles

In accordance with IFRS 3, the Group accounts for business combinations using the acquisition method, provided that the acquired set of activities and assets meets the definition of a business and the Group has obtained control. When determining whether a specific set of activities and assets constitutes a business, the Group assesses whether the set of acquired assets and activities comprises at least one input and one substantial process and whether the acquired set of activities and assets can generate outputs. Under the acquisition method, the acquirer accounts for the business combination by measuring and recognizing the identifiable assets acquired and the liabilities and contingent liabilities assumed. The identifiable assets, liabilities, and contingent liabilities are measured at fair value. Any excess of the purchase price over the net fair value of the acquired assets is recognized as goodwill and tested for impairment in accordance with IAS 36 at least annually, or at shorter intervals if there is an indication that the asset might be impaired. If the Group's interest in the net fair value of the acquired identifiable net assets exceeds the cost of the business combination, that excess (negative goodwill) is recognized in the income statement after remeasurement as required by IFRS 3.36.

Non-controlling interests are initially measured on the basis of their proportion of the identifiable net assets of the acquiree at acquisition date. Changes in the share of a subsidiary held by the Group that do not lead to a loss of control are accounted for as an equity transaction between owners.

The effects of intragroup transactions are eliminated. Receivables and liabilities as well as expenses and income between the consolidated companies are offset against each other. Intragroup profits and losses are eliminated.

Currency translation

Transactions in foreign currencies are translated to the functional currency using the exchange rate prevailing on the date of the transaction. At the reporting date, monetary items are translated using the exchange rate prevailing at that date, whereas non-monetary items are translated using the exchange rate prevailing on the actual transaction date. The translated amounts are recognized in revenue, cost of goods sold, other function costs, or net financial income/expense depending on the underlying transaction.

As a general principle, translation differences are recognized in profit or loss for the period and presented in net financial income/expense. Revenue from currency translation does not constitute revenue within the meaning of IFRS 15.

Contrary to the general principle, currency translation differences relating to the following items are recognized in other comprehensive income and thus outside of profit or loss:

- Qualifying cash flow hedges, provided that they are effective.

The assets and liabilities of Group companies whose functional currency is not the euro are translated from the corresponding local currency to the euro using the closing exchange rate at the reporting date. In the income statements of foreign Group companies whose functional currency is not the euro, income and expense items are translated each month using the exchange rate applicable at the end of the month; the average exchange rate for the year can be derived from these end-of-month exchange rates. The translation difference between the respective local currency and the euro arising in the annual result compared with the closing rates is recognized directly in equity under other comprehensive income.

In the event of full or partial disposal of a foreign business, which results in loss of control or the loss of significant influence or joint control, the accumulated amount recognized in currency translation reserves in connection with the foreign business up to this date is reclassified to profit or loss as part of the disposal gain/loss.

In the event of only partial disposal, without loss of control, of a subsidiary that includes a foreign business, the corresponding portion of the accumulated translation differences is allocated to non-controlling interests.

If the Group sells part of an associate or joint venture that includes a foreign business but retains a significant influence or joint control, the corresponding portion of the accumulated currency translation differences are reclassified to profit or loss.

Accounting policies

The consolidated financial statements of MTU Aero Engines AG, Munich, and its subsidiaries are prepared using uniform accounting policies based on the International Financial Reporting Standards (IFRSs).

Revenue

IFRS 15 states that revenue from contracts with customers should be recognized as an amount that reflects the consideration to which the entity expects to be entitled in exchange for the promised goods or services as part of its contractual performance obligation. A five-step model framework is used to identify and measure this revenue:

1. Identify the contract(s) with the customer,

2. Identify each party's performance obligations in the contract,

3. Determine the transaction price,

4. Allocate the transaction price to the performance obligations in the contract,

5. Recognize revenue when (or as) the entity satisfies a performance obligation.

Identification of the contracts with the customer

Contracts may be entered into in writing, orally or implicitly in the ordinary course of business. In each case, the contracts must be enforceable and have commercial substance. A contract with a customer will be within the scope of IFRS 15 if these conditions are met and as soon as it is "probable" that MTU will collect the consideration to which it is entitled for the performance of the contractually agreed work and services. When the probability that the consideration will be collected is assessed, the customer's ability and intention to deliver the consideration by the due date are taken into account. MTU considers contracts to be within the scope of IFRS 15 if:

- all parties are in agreement with the terms of the contract,
- each party's rights in relation to the goods or services to be transferred can be identified,
- the payment terms for the goods or services to be transferred can be identified,
- the contract has commercial substance, and
- it is probable that the consideration to which MTU is entitled in exchange for the goods or services will be collected.

If, at the reporting date, a contract with a customer does not yet meet all of the above criteria, the company will continue to re-assess the contract at regular intervals until such time as the criteria are met. From this point onward, IFRS 15 will be applied to the contract.

In the case of risk- and revenue-sharing partnerships in the commercial engine business (OEM segment), MTU identifies the consortium leader that exercises control over the relevant engine program or, in individual cases, special-purpose consortia (OEMs), as customers within the meaning of IFRS 15. In the case of risk- and revenue-sharing partnerships with joint consortium leadership – as is the standard for the military engine business (OEM segment) – by contrast, the customer served by the consortium (e.g., an air force) is identified as the customer within the meaning of IFRS 15. In the commercial maintenance business (MRO segment), MTU identifies customers within the meaning of IFRS 15 on the basis of the regular direct customer (e.g., aircraft operator, leasing company).

Contract modification

Given the long operating cycles in the engine industry, it is common practice to conclude long-term contracts. These are regularly modified to provide more detailed specifications or optimize the exchange of services. In particular, the renewal of existing contracts is also regarded as a contract modification. A contract modification in accordance with IFRS 15 exists if the changes either create new rights and obligations or modify existing enforceable rights and obligations, thus altering the scope of the contract and/or the agreed price. Such changes must be accounted for either by modifying the existing contract or by establishing a separate, new contract. In the commercial maintenance business (MRO segment) in particular, maintenance for engine fleets can be arranged by way of long-term service agreements. The renewal of such long-term service agreements is usually accounted for as the termination of the old contract and the simultaneous establishment of a new contract.

Identification of performance obligations

Once a contract has been identified as being within the scope of IFRS 15, its terms and conditions and the customary business practices in the sector are assessed in order to identify the promised goods or services (or bundle of goods and services) to be treated as distinct performance obligations and subsequently recognized. A good or service is distinct if the customer can benefit from the good or services on its own or in conjunction with other readily available resources, and if the promise to transfer the good or services to the customer is separately identifiable from other promises in the contract.

The material categories of performance obligations recognized by MTU are as follows:

- manufacturing/delivery of aircraft engine components, including their assembly into modules
- development/provision of engine technology
- technical services relating to the development, manufacturing and repair of engines and toll manufacturing
- Maintenance and overhaul of engines and gas turbines, including fleet maintenance management and the related support services (e.g., engine leasing)

Determination of the transaction price

The transaction price is the amount of consideration to which a company is entitled in exchange for the transfer of goods or delivery of services to a customer. Where a contract contains elements of variable consideration, the company will estimate the amount of variable consideration to which it is entitled under the terms of the contract.

Variable consideration included in the transaction price is only recognized as revenue to the extent that MTU considers a subsequent revenue reversal highly improbable.

The agreed transaction price is reduced in the case of payments to customers. MTU defines such payments to customers as payments that are not made in exchange for identifiable goods and services that are independent of MTU's performance obligations toward its customer. Such payments to customers are customary in the sector, especially in the commercial engine business (OEM segment) due to risk- and revenue-sharing structures. The payments relate to compensation for engine development and certification, measures to gain market access and customer acquisition, and, where relevant, include joint liability for warranty risks, contractual penalties and other price and costs risks in connection with the respective engine programs.

Allocation of the transaction price to performance obligations

Where a contract comprises multiple performance obligations, the transaction price is allocated to the performance obligations by reference to their standalone selling prices. Standalone selling prices are based whenever possible on information that is observable in the market. Certain variable consideration components are allocated in full to a performance obligation by reference to their economic substance. The allocation is made in accordance with the contractual objectives, taking into account the fact that MTU will substantially satisfy the performance obligation. If no standalone selling price is directly observable, MTU as a general rule estimates the applicable transaction price on the basis of the expected costs plus an appropriate margin. In the case of contracts in the commercial and military engine business (OEM segment) in which MTU's role is effectively that of a supplier or service provider to the consortium leader (OEM), without the responsibility to provide development assets or engine technology, the transaction prices are fixed in the consortium agreement, including variable elements. These transaction prices must be allocated in full to the goods delivered or services provided (e.g., engine assembly).

For commercial consortium agreements in which MTU assumes responsibility for providing development/engine technology to the consortium or consortium leader (OEM) in addition to supplying parts or performing assembly, engine maintenance and other maintenance services, MTU initially allocates the contractually agreed, market-driven transaction prices (relative standalone selling prices) to the corresponding delivery and performance obligations. The additional contractually agreed variable consideration (share in the net profits of the engine program) is allocated to the obligation to provide the development/engine technology.

In the commercial maintenance business (MRO segment), transaction prices fixed in the consortium agreement, including variable elements, are allocated with reference to the relative standalone selling prices to the identified components of the respective maintenance contracts.

Recognition of revenue when performance obligations are satisfied

Revenue is recognized when control over a good or service relating to the delivery of engine modules and parts to the customer is transferred, which can be either at a specific point in time or over a definable period of time.

Revenue from the delivery of engine modules and parts is recognized at a point in time, based in particular on the effective transfer of control and the significant risks and opportunities related to the delivery of engine modules and parts to the customer. In the commercial engine business, the transfer of control and of the associated beneficial risks and opportunities generally takes place at the point in time when the modules and parts are delivered to the consortium leader, i.e., to the program consignment inventories managed by the consortium leader. Revenue from customer-specific services – such as development projects and especially engine maintenance – is recognized over time if they meet the necessary criteria.

With regard to the fulfillment of the performance obligation concerning the development/provision of engine technology, the transfer of control and the relevant opportunities and risks generally takes place at the time the technical documentation for the modules and parts developed by MTU is made available to the OEM (customer). With regard to revenue recognition, the restrictions under IFRS 15.B63 (sales-based or usage-based royalties on licenses of intellectual property) apply in the case of MTU.

Where revenue is recognized over time, the amount of completed work is generally determined based on the ratio of contract costs incurred as at the reporting date to the expected costs of the entire contract. The advantage of this method is that the inputs used to determine the amount of completed work are directly observable and the company can obtain the necessary information with sufficient reliability. If the amount of completed work can be determined more reliably on the basis of the services already provided, the revenue is recognized accordingly in these cases.

In the reporting period and the previous year, substantially all claims to consideration recorded or to be recorded in the future in connection with the provision of goods and services for which orders had been placed as at the reporting date qualify as revenue from contracts with customers pursuant to IFRS 15. In addition to this, revenue from leases is recognized in accordance with IFRS 16 and "government grants and assistance" in the form of reimbursements of development expenses within the meaning of IAS 20 continue to be recognized in the income statement.

Contracts with subcontractors

In individual cases, MTU works with subcontractors to fulfill its performance obligations. When MTU subcontracts the repair of engine components to a third party, MTU remains responsible for the quality of these repairs vis-à-vis its customer. MTU is normally responsible for ensuring certification of the airworthiness of the delivered engine components. Subcontractors generally bill MTU on a commercial basis. This is independent of MTU's invoicing of its customers.

MTU therefore acts essentially as principal and recognizes its revenue from the relevant transactions on a gross basis by recognizing invoices to its customers in revenue and the invoices received from subcontractors in the cost of goods sold.

Activity as agent for the sale of non-MTU parts

As a member of certain engine consortia in the military sector (OEM segment), MTU participates in the sale of parts made by other partners, in addition to its development and production activities. The specific tasks performed by MTU consist, in particular, of organizing and supporting the sales process. The corresponding commission on the sale is recognized as revenue when no uncertainty exists as to the amount of revenue arising from the sale, which is then recognized at a point in time.

Since MTU is the agent in this transaction, it recognizes the net amount of the consideration to which it is entitled for its activity as an agent in revenue.

Cost of goods sold

The cost of goods sold comprises the production cost of goods and services sold, including customer-funded development work, and the cost of products purchased for resale. In addition to direct material and production costs, it also comprises attributable production overheads, including amortization of production-related intangible assets and depreciation of production facilities, write-downs on inventories and an appropriate portion of production-related administrative overheads.

Research and development expenses

Research costs are expensed in the period in which they are incurred.

In the case of development costs, a distinction is drawn between customer-funded development work and company-funded development work.

Services provided as part of customer-funded development projects (e.g., government technology funding programs) are reported in cost of goods sold due to their expected reimbursement by a contracting entity.

Development costs generated in the context of company-funded development projects are capitalized in accordance with IAS 38 if they meet the relevant requirements. Otherwise, they are recognized as an expense in the period in which they are incurred. The capitalized development costs comprise all costs directly attributable to the development process and are amortized through cost of goods sold over the asset's respective useful life from the start of marketing of the engine program by MTU.

Intangible assets

Externally acquired and self-generated intangible assets are recognized in accordance with IAS 38 if it is probable that a future economic benefit is associated with the asset and the cost of the asset can be measured reliably.

Intangible assets with a finite useful life are carried at their purchase or production cost and amortized through cost of goods sold on a straight-line basis over their useful lives.

Amortization is based on the following regular useful lives:

Useful lives of assets (in years)

Program assets arising from the purchase price allocation and self-generated development assets	Maximum 30
Customer relationships	4 – 26
Concessions, industrial property rights, similar rights	Maximum 30
Other assets	3 – 10

The useful lives and amortization methods pertaining to intangible assets are regularly assessed for appropriateness, and adjustments are made where necessary to the estimates used when the financial statements are being prepared.

Capitalized goodwill is tested for impairment regularly or as necessary in accordance with IAS 36; each of the two operating segments, OEM (commercial and military engine business) and MRO (commercial maintenance business), is tested separately.

Property, plant and equipment

Property, plant and equipment are subject to wear and tear and are carried at their purchase or production cost less cumulative depreciation charges and impairment losses. The cost of items of self-constructed plant and equipment comprises all directly attributable costs and an appropriate proportion of attributable production-related overheads. The revaluation model is not applied. Depreciation on property, plant and equipment is calculated using the straight-line method in accordance with the useful life of the respective asset.

Depreciation is based on the following regular useful lives:

Useful lives of assets (in years)

Buildings	20 – 50
Lightweight structures	10 – 15
Property facilities	10 – 20
Technical equipment, plant and machinery	5 – 25
Operational and office equipment	1 – 14

The useful lives of machines used in multi-shift operation are reduced accordingly to take account of additional usage. The useful lives and amortization methods pertaining to intangible assets are regularly assessed for appropriateness, and adjustments are made where necessary to the estimates used when the financial statements are being prepared.

Public sector grants and assistance

In accordance with IAS 20, public sector grants and assistance are not recognized until there is reasonable assurance that the conditions attached to them will be complied with and that the grants will be received. Grants are recognized as other operating income in the periods in which the related expenses arise. This item also includes the reimbursement of personnel expenses under relevant government assistance programs.

In the case of capital expenditure on property, plant and equipment and on intangible assets, the amount of the public sector grant awarded for this purpose is normally deducted from the purchase or production costs of the asset. The grants are then recognized in the income statement using reduced depreciation/amortization amounts over the useful life of the asset. If public sector grants and assistance are not directly linked to assets that are subject to depletion, they are generally recognized as other operating income in the periods in which expenses arising from fulfillment of obligations related to the grants are incurred. This does not apply to grants funding technology, which are reported as revenue as a verified reimbursement of expenses in the year they are received. They do not constitute revenue within the meaning of IFRS 15.

Borrowing costs

Borrowing costs directly related to the acquisition, construction or production of qualifying assets are added to the purchase or production costs of those assets in accordance with IAS 23 until such time as the assets have been made ready for sale or for their intended use. Qualifying assets are those that require a substantial period of time to prepare them for their intended use or for sale.

Borrowing costs are capitalized only insofar as they relate to the purchase and preparation of qualifying assets for their intended use or sale, and only include activities that commenced on or after January 1, 2009. The capitalized portions of borrowing costs that affect cash flows are included in the line item “interest paid” in the cash flow from operating activities in the consolidated cash flow statement.

Leases

A contract is accounted for as a lease if it grants the following rights:

- right to control the use of an identified asset in return for compensation
- right to obtain substantially all the economic benefits from that use

At the start of the lease, a lease liability is recognized and a right-of-use asset of the same value is recorded. Right-of-use assets are recognized at cost less all cumulative depreciation charges and all cumulative impairment losses. Lease liabilities are recognized at the present value of the lease payments to be made over the term of the lease. The lease payments generally comprise fixed and variable lease payments that are not dependent on usage.

The Group generally calculates the present value of lease payments by applying its incremental borrowing rate at the delivery date, because the interest rate underlying each lease regularly cannot be determined reliably on an individual basis. After the delivery date, interest is added to the lease liabilities, and they are reduced by lease payments made. In addition, the carrying amount of the lease liabilities is remeasured when there is any modification of the lease, lease term, or lease payments (e.g., changes in future lease payments due to a change in the index or interest rate used to determine those payments), or a change in the assessment of an option to buy the underlying.

Lease payments are reported in the cash flow statement, with the amount of the lease liabilities paid recognized in cash flow from financing activities and the interest component paid recognized in cash flow from operating activities.

For accounting purposes, certain future developments are only taken into account if their occurrence is deemed to be sufficiently certain.

MTU applies the recognition exemptions permitted by IFRS 16. Accordingly, right-of-use assets and lease liabilities are not recognized if, from an economic standpoint, the lease term is less than 12 months at its commencement (short-term lease) or the value of the underlying asset is less than €5,000. Lease payments owed for leases with a short term or for low-value leased assets, as well as variable lease payments dependent on the use of the leased asset, are recognized in function costs in the income statement.

If the Group acts as lessor, all leases at the start of their term are classified as either finance leases or operating leases.

In this context, classifying a lease requires the Group to make an overall assessment as to whether the lease transfers all significant risks and opportunities associated with ownership of the underlying asset. If this is the case, the lease is classified as a finance lease; if not, it is classified as an operating lease. In making this assessment, the Group takes into account certain indicators, especially whether the lease covers most of the useful life of the asset.

On the delivery date of the leased assets, assets held in a finance lease are recognized as a receivable in the amount of the net investment in the lease. The market interest rate used to calculate the lease is used to measure the net investment in the lease. Revenue relating to leases is outside the scope of IFRS 15.

By contrast, the accounting treatment of sale and leaseback transactions depends first on whether the transaction involves the sale of an asset, which is assessed on the basis of the criteria set out in IFRS 15. If the transfer of the asset is classified as a sale, MTU, as the lessee, derecognizes the leased asset sold and instead recognizes a right-of-use asset, the value of which is derived from the ratio of the right-of-use asset received to the original carrying amount of the derecognized leased asset. The gain or loss on the transaction is recognized in the income statement at an amount equal to the rights transferred to the purchaser and lessor. If the sale price does not correspond to the fair value or if the subsequent payments do not correspond to market conditions, corrections must be made. If the conditions are below market level, the difference must be classified as a prepaid lease payment; if, on the other hand, they are above market level, the difference must be recognized as a loan from the lessor. If, after examining the relevant criteria, it is determined that the transaction does not constitute a sale within the meaning of IFRS 15, MTU, as the lessee, continues to recognize the legally transferred asset and recognizes a financial liability in the amount of the transfer price, which must be accounted for in accordance with IFRS 9.

Acquired program assets and acquired development work

MTU refers to program assets and acquired development as capitalized imbalance payments to the consortium leader (OEM) in favor of inclusion in or compensation for development services for the respective engine program. Such imbalance payments generally take account of the proportionate stake that MTU acquires or has acquired as a partner in the consortium for the engine program.

Since there is no specific consideration, MTU classifies these imbalance payments to the OEM – the identified customer in the commercial engine business (OEM segment) – as payments to customers in accordance with IFRS 15. Such payments are always accounted for by reference to the economic life of the engine program. Moreover, they systematically arise at the start of the respective engine program. Accordingly, these payments are recognized on the balance sheet as non-current assets and subsequently offset against revenue in parallel with the recognition of revenue from the performance obligation concerning the development/provision of engine technology in the commercial engine business during the respective economic life of the program, which is usually up to 30 years.

If such compensation payments contain significant deferred conditional components, they are accounted for analogously to IFRIC 1 if a direct relationship between the conditional components and the economic benefit (revenue) from the program stake is identifiable. Changes resulting from reassessment of the deferred conditional components are initially recognized outside of profit or loss by adjusting the related asset. This asset is subsequently amortized as outlined above in accordance with the recognition of revenue from the respective engine program over the remaining economic life of the program and thus reduces revenue. Any repayments are deducted from the carrying amount. The reimbursement of program values and/or acquired development by the respective OEM is recorded with no effect on the income statement by offsetting the corresponding assets.

Impairment of intangible assets, property, plant and equipment, acquired program assets and acquired development work

At each reporting date, an analysis is carried out to reveal any indication that the value of intangible assets, or property, plant and equipment, or acquired program assets or development work might be impaired. If impairment is indicated, the value of the asset in question is assessed on the basis of its recoverable amount.

While assets with an indefinite useful life, intangible assets that are not yet ready for use, and goodwill acquired in connection with a business combination are not subject to amortization, they are reviewed for possible impairment at least once each year, even if there is no indication of impairment. Annual impairment testing of goodwill takes place at the level of the cash generating units, corresponding to the two operating segments, commercial and military engine business (OEM segment) and commercial maintenance business (MRO segment).

Impairment losses on intangible assets, property, plant and equipment and acquired program assets or acquired development work are determined by comparing the carrying amount with the recoverable amount at the level of the engine programs, which are the cash-generating units. The recoverable amount is usually determined as the value in use using a discounted cash flow (DCF) method. If the need to recognize an impairment loss is identified, the fair value less costs to sell is also determined, where possible.

When applying the discounted cash flow (DCF) method, the weighted average cost of capital (WACC) before tax is derived iteratively on the basis of a corresponding after-tax discount rate. This is derived from the cost of equity after tax, which is based on a risk-free base interest rate and a risk premium (market risk premium multiplied by the beta coefficient calculated on the basis of a peer group analysis). The cost of debt of the peer group companies is also factored into the calculation. Cost of equity and cost of debt are weighted according to the average capital structure of the peer group companies when determining WACC after tax. The discount rate used for a DCF method is WACC as an approximation of the risks associated with the asset or the cash-generating unit.

If it is not possible to attribute separate future cash flows to discrete assets that have been generated independently of other assets, then an impairment test must be carried out on the basis of the cash-generating unit to which the asset (group) ultimately belongs. For this purpose, the cash flows that can be generated by the asset or cash-generating unit are forecast. For this purpose, the cash flows that can be generated by the asset or cash-generating unit are forecast. These forecasts are based on the current operational or strategic planning for the Group, as approved by the management or in relation to the respective asset or cash-generating unit.

If there is sufficient certainty that the reasons for impairment losses recognized in a prior period for assets or their cash-generating units are considered obsolete, the impairment loss on these assets is reversed, except in the case of goodwill.

Non-current financial assets

Investments in joint ventures and associates that have a material impact on the Group's net assets, financial position and results of operations are accounted for using the equity method. The Group's share in the profit or loss of these entities is therefore allocated to profit/loss and to the corresponding carrying amount of the investment and included in the consolidated financial statements in the line item "profit/loss of companies accounted for using the equity method and of equity investments."

Inventories

Raw materials and supplies are measured at average purchase cost or net realizable value, whichever is lower. Transaction price reductions such as rebates, bonuses or cash discounts are taken into account when determining acquisition cost. Purchase cost comprises all direct costs of purchase and other costs incurred in bringing the inventories to their present location and condition.

Finished products and work in progress are recognized at purchase/production cost or net realizable value, whichever is lower. The purchase/production cost comprises all direct costs of acquisition and production plus the appropriate portion of material and production overheads, including production-related depreciation. Administrative expenses are also included to the extent that appropriate allocation to production operations is possible.

Net realizable value is the estimated selling price generated in the ordinary course of business for the relevant finished goods, less the expected costs required to sell the product (costs to complete and selling expenses).

In the commercial engine business (OEM segment), inventories of new and series production parts held by the consortium (OEM) are regularly marketed at their net realizable value below the consortium's corresponding acquisition or manufacturing costs for the purpose of opening up new markets. As a consortium partner in commercial engine programs, MTU participates indirectly in the revenue from this loss-making series production business of its customer, the OEM, through its effect on the program profits and hence the revenue component of the obligation to provide development/engine technology (sales-based or usage-based royalties on licenses of intellectual property within the meaning of IFRS 15.B63).

Valuation allowances are recognized through profit or loss to account for the impairment risk of inventories.

Contract assets

Contract assets are recognized with an impact on revenue and the balance sheet if the Group has satisfied its contractual obligations by transferring goods or services to the customer before the customer settles the identified consideration or the consideration is due. In doing so, settlement of the consideration relating to the contract asset by the customer does not take place solely over time – in this case, a trade receivable would be recognized instead of a contract asset. The contract assets are presented net on the basis of contracts with customers, taking into account corresponding advance and progress payments to be received and associated contract liabilities.

Financial instruments

A financial instrument is a contract that simultaneously gives rise to a financial asset in one company and to a financial liability or equity instrument in another company.

Financial assets

Financial assets comprise cash and cash equivalents, trade receivables, loans to third parties, other receivables, derivative financial assets, and other interests in related companies.

At initial recognition, financial assets are measured at their fair value on the trade date, except for trade receivables, which are recognized at the transaction price. The measurement of a financial asset subsequent to initial recognition depends on its classification.

Financial assets are accounted for at amortized cost in accordance with IFRS 9 if they are acquired with the objective of collecting solely contractual cash flows that are payments of principal and interest. In this case, the Group does not apply the option of recognition at fair value through profit or loss permitted by IFRS 9.

In application of the option permitted by IFRS 9, the Group recognizes financial assets that are contractual debt instruments that are held for trading at fair value through profit or loss. By contrast, taking into account the applicable accounting option, as a general rule, equity instruments are accounted for at fair value through other comprehensive income.

Arm's length acquisitions and disposals of financial assets are recognized as of the fulfillment date.

Impairment loss on financial assets

The aim of the IFRS 9 impairment model is to reflect expected losses on the balance sheet and income statement.

In the case of trade receivables and contract assets, expected losses are recognized for the entire remaining duration of the contract (lifetime expected credit losses). For all other financial instruments, expected credit losses are measured at an amount equal to the 12-month expected credit losses, unless there has been a significant increase in the credit risk. In this context, MTU does not assume a significant increase in credit risk if payment is more than 30 days †past-due because MTU's business practices take a longer-term view. Rather, MTU considers there to be a significant increase in credit risk when uncontested, contractually due receivables are more than 90 days past-due. Otherwise, expected losses are also recognized for these financial assets over their remaining term to maturity.

To determine whether there has been a significant increase in the credit risk of a financial asset, the probability of default is assessed at least once a quarter using both external rating information and internal information on the specific credit risk of the financial asset. In the case of debt instruments, a significant increase in the credit risk is determined principally on the basis of past-due information and probability of default.

When calculating the expected credit losses, a ratio is factored in for the possible impairment of groups of financial assets with a comparable credit rating. The loss allowance is based on credit spreads covering good, average and poor credit ratings. The classifications used by respected rating agencies are applied when making these assessments.

The credit rating of financial assets is considered to be impaired and a corresponding impairment loss is recognized in profit or loss in the following cases: significant financial difficulties of the debtor or a high probability that the debtor will enter bankruptcy or financial reorganization; the closure of an active market; significant changes in technological, economic, legal or market conditions affecting the issuer; or a significant or persistent decline in the fair value of the financial asset below its amortized cost. For this assessment, MTU makes use, in particular, of publicly available information from respected credit and rating agencies. If the result is that the asset is uncollectable, it is derecognized instead of recognizing an impairment loss.

Derivative financial instruments

MTU uses derivative financial instruments as a hedge against currency and price risks arising from its operating activities and financing transactions.

At initial recognition and when measured subsequently, derivative financial instruments are measured at their fair value. Derivative financial instruments used in hedging relationships are recognized outside of profit or loss until the related hedged item is realized or any ineffectiveness materializes; the accumulated gains and losses are then reclassified from other comprehensive income to profit or loss for the period.

The fair value is generally determined using quoted market prices in an active market and is represented by the amount that MTU would receive or would have to pay at the reporting date if the financial instrument were terminated. If no quoted market prices in an active market are available, the fair value is calculated using recognized financial mathematical models (DCF method) on the basis of the relevant exchange rates, interest rates and credit standing of the contractual partners at the reporting date.

Cash and cash equivalents

The salient feature of cash and cash equivalents, which include demand deposits, money market funds and short-term bank deposits, is that they have an effective maturity of three months or less from the date of acquisition. Assuming the appropriate creditworthiness of the debtor, they are measured at their nominal value or at fair value through profit or loss.

Hedge accounting (hedging relationships)

MTU satisfies the requirements of IFRS 9 concerning instruments used to hedge future cash flows from revenue-generating transactions in foreign currencies (cash flow hedges). At the inception of the hedge, the relationship between the financial instrument designated as the hedging instrument and the underlying transaction (hedged item) is documented, as are the risk management objective and strategy for undertaking the hedge. This includes assessing the effectiveness of the hedging instrument used. Existing cash flow hedges are checked for effectiveness on a regular basis.

MTU uses (derivative) financial instruments as cash flow hedges to hedge the exposure of expected cash flows relating to transactions in U.S. dollars (hedged items) to fluctuations in foreign currency exchange rates. At remeasurement subsequent to initial recognition, the effective portion of the hedging instrument is recognized in equity in other comprehensive income, together with attributable deferred taxes, until such time as the underlying hedged transaction is realized.

The amounts recognized in other comprehensive income at remeasurement are recycled to the income statement as soon as the underlying hedged transaction is recognized. The cost of effective hedging instruments, especially those used to hedge cash flows from revenue-generating transactions (cash flow hedges), is recognized in other operating income.

Current and deferred taxes

Current and deferred taxes are recognized in the consolidated financial statements in the manner prescribed in the relevant income tax jurisdictions. Current and deferred taxes are recognized in equity if they relate to business transactions that directly lead to a decrease or increase in equity.

The MTU Group assesses whether it is probable that a tax authority will accept a specific tax treatment. Based on this assessment, it determines the taxable profit, tax bases, unused tax losses, unused tax credits or tax rates consistently with the tax treatment that it uses or plans to use in the income tax filings of relevance to the Group.

If MTU concludes that it is probable that the tax authority will not accept the chosen tax treatment, it reflects the tax implications of this uncertainty in the measurement of the related taxable profit or tax bases and in the accounting treatment of unused tax losses and unused tax credits, and in the tax rates applied through a best estimate (e.g., the amount/expected amount) of the most likely outcome.

If this tax treatment affects both current and deferred taxes, the MTU Group makes consistent judgments and estimates for both current and deferred taxes, or makes estimates that are coherent for both taxes.

Interest on back taxes and tax refunds arising from tax audits is recognized in interest expense in the income statement.

Deferred tax assets and liabilities are established for temporary differences between the tax bases of assets and liabilities and the corresponding carrying amounts in the IFRS consolidated balance sheet. Tax assets are established on tax credits available for carry-forward at such time as the conditions attached to the award of the tax credit have been fulfilled. Similarly, deferred tax assets are established on tax losses available for carry-forward. Deferred tax assets are recognized if it is probable that there will be taxable income against which it is possible to apply the deductible temporary difference and the tax losses and tax credits available for carry-forward. Deferred tax assets and liabilities are measured using the tax rates applicable on the date when the temporary differences are reversed. Deferred tax assets and liabilities are offset insofar as this meets the relevant requirements of IAS 12.

In the MTU Group, the recognition of deferred tax assets for tax credits and tax losses available for carry-forward is limited by the applicable taxable income against which they can be offset within a detailed planning period of at most five years. The same procedure is used when recognizing net deferred tax assets relating to temporary differences.

Pension obligations

Provisions for pension obligations are accounted for using the projected unit credit method in accordance with IAS 19. This method takes into account not only pension and other vested benefits known at the reporting date, but also expected increases in pensions as well as wages and salaries, applying a conservative assessment of the relevant parameters.

In the case of defined contribution plans, the company has no obligations beyond the payment of contributions to the plan. In the case of defined benefit plans, the company has an obligation to fulfill commitments to current and former employees.

In some cases, it is difficult to differentiate between defined contribution and defined benefit plans. In Germany, for example, a minimum level of benefits is guaranteed for defined contribution plans, such that, even when the plan is provided through an external fund or insurance company, MTU, as the employer, remains liable. This "ultimate employer liability" is governed in Germany by the German Occupational Pensions Act (BetrAVG). For financial reporting purposes, the term "defined benefit plan" is interpreted on the basis of the underlying economic substance of the arrangement. If the Group has no legal or constructive obligation to make further contributions, these plans are classified as defined contribution plans. Current contributions are recognized as personnel expenses through profit and loss in the period in which they are paid.

Actuarial gains and losses – from the measurement of the defined benefit obligation (DBO) or the associated plan assets – may arise either from changes in the actuarial assumptions used or when the actual development diverges from those assumptions. They are recognized in other comprehensive income in the period in which they arise and are recognized separately in the statement of comprehensive income. By contrast, past service cost is recognized directly in profit and loss. If the criteria given in IAS 19 are met, reinsurance claims are treated as plan assets and netted against the corresponding pension obligations. The interest expense resulting from the reversal of the discount on the net liability, comprising pension obligations less the corresponding plan assets, is recognized through profit and loss in other financial income/expense. Service cost is recognized in the income statement as personnel expenses allocated to the relevant function costs.

Other provisions

In accordance with IAS 37, other provisions are recognized to cover legal or constructive obligations resulting from past events if settlement is expected to result in an outflow of resources, where the expected amount can be estimated with sufficient reliability. Relevant obligations regularly arise in connection with warranties, legal and litigation expenses, pending losses on onerous contracts, personnel-related matters, and other issues.

If a planned and controlled restructuring program has been presented by the management, provisions are recognized for the expenditures arising directly from the restructuring. Restructuring provisions are recognized only if there is a constructive restructuring obligation and if the related expenditures are both necessarily incurred as a result of the restructuring and not associated with the company's ongoing operating activities.

Non-current provisions for liabilities with an identifiable maturity of more than one year beyond the reporting date are measured at the present value of expected future cash flows. The company measures provisions for pending losses on onerous contracts at the lower of the expected costs on settlement of the contract and the expected costs on premature termination of the contract.

Provisions for personnel obligations are recognized in accordance with IAS 19 or IAS 37. Obligations relating to pre-retirement part-time working arrangements and long-service awards are measured on the basis of actuarial reports.

Contingent liabilities

Contingent liabilities are potential obligations arising from past events whose existence depends on the occurrence or non-occurrence of one or more uncertain future events that are not wholly within the control of MTU. Contingent liabilities are not recognized as liabilities in the balance sheet because at the reporting date it is considered that there is unlikely to be an outflow of economic resources, or, as an exception, the amount of the obligation cannot be reliably estimated.

Contract liabilities

If a customer pays consideration before the company transfers the contractually agreed good or service to the customer, which gives rise to an unconditional right to consideration, the company recognizes a contract liability for the consideration in accordance with IFRS 15.

Recognition of a contract liability signifies that MTU has entered into an agreement with a customer in which it promises to transfer goods or services to that customer in exchange for consideration. When one of the parties to a contract with a customer has fulfilled its contractual obligations, a contract asset, a contract liability or a receivable is recognized, depending on the relationship between MTU's performance and the customer's payment. Contract assets and liabilities are recognized as current because they have arisen within the normal operating cycle. MTU's contract liabilities arise in the normal course of business in its commercial and military engine business (OEM) and in its commercial maintenance business as part of the provision of technical services, in particular maintenance and repair services. MTU can generally claim the contractual consideration before or at the same time as it provides the service. The contract liabilities are presented on the basis of contracts with customers and are netted against any corresponding contract assets recognized as at the reporting date.

Refund liabilities

In accordance with IFRS 15, a refund liability is recognized if the company receives consideration from a customer and expects to refund some or all of that consideration to the customer. A refund liability is measured at the amount of consideration received for which the entity does not expect to be entitled as of the reporting date. In the commercial engine business (OEM segment), MTU participates in program profits through the provision of development work/technology. Over time, these profits are influenced by invoice corrections, which result from the multi-step invoicing processes in the supply chains for commercial engine programs; engine parts are invoiced at list price within the engine program supply chain and subsequently sold to program customers at a discount (program settlement risks). As a partner in such consortia, MTU initially participates in all invoicing by the engine program through its pro rata share of the program profits.

Furthermore, as a partner in commercial engine program consortia (OEM segment), MTU is exposed to unplanned price and cost risks relating to the engine program, which can also result in – at times significant – corrections to the share of the program profits granted by the OEM. To take account of such potential refunds, MTU recognizes revenue-reducing refund liabilities on the basis of estimates.

Financial liabilities

Financial liabilities reflect contractual obligations to return cash or another financial asset. Financial liabilities include, in particular, bonds and other liabilities evidenced by certificates, trade payables, finance lease liabilities, promissory notes, derivative financial liabilities and other financial liabilities to third parties.

Financial liabilities are measured at their fair value at the time of acquisition, which is normally equivalent to the fair value of the settlement amount. Transaction costs directly attributable to the acquisition are deducted from the amount of all financial liabilities, except derivatives. If a financial liability is interest-free or bears interest at below the market rate, it is recognized or initially measured at fair value, which may subsequently differ from the corresponding settlement price or nominal value. Subsequently, the financial liability is amortized using the effective interest rate method.

Interest on debt is presented in the consolidated cash flow statement in the line item "interest paid" in the cash flow from operating activities.

Share-based compensation

Since this reporting period, the long-term performance-related compensation of the Executive Board has been based on a performance share plan (PSP/LTI) with a four-year assessment period and cash settlement. The obligation is measured in accordance with IFRS 2 at fair value and is carried forward until the end of the performance period. A Monte Carlo simulation of the share price development of MTU and the relevant peer group companies is used to determine the fair value of the PSP. The simulation takes into account both historical observations to derive share price volatility and analyst forecasts to estimate the expected dividend during the assessment period.

Dividend payment and profit distribution

The claims of shareholders to dividend payments and profit distribution relating to a specific reporting period (fiscal year) are recognized as a liability in the period in which the corresponding resolution is passed. Disclosures relating to the Executive Board's or Supervisory Board's proposal to the Annual General Meeting concerning the dividend payment are provided in *section VII. Determination of the net profit available for distribution on the basis of the annual financial statements*.

Discretionary scope, measurement uncertainties and sensitivity

Preparation of the consolidated financial statements in accordance with IFRSs requires that assumptions and estimations be made that have an impact not only on the amounts of the assets, liabilities and contingent liabilities, but also on how these items are recognized. These assumptions and estimations conform with the circumstances prevailing at the reporting date and, to that extent, also influence the amount of income and expenses recognized in the reporting periods presented. The assumptions and estimations relate primarily to the Group's own determination of the useful lives of intangible assets and property, plant and equipment or the basis for measuring acquired program assets and development work, measuring inventories and contract assets, calculating the fair value of financial instruments and other assets, determining the effective date of planned transactions that form part of a hedging relationship, measuring and recognizing provisions and other liabilities, especially refund liabilities and contract liabilities, as well as recognizing tax assets, especially in connection with temporary differences, tax losses available for carry-forward and tax credits. Assumptions and estimations are the elementary basis for planning calculations at company, segment, program, and customer contract level. Such planning calculations form the material basis for impairment testing in accordance with IAS 36, including in connection with program assets and other program-related assets, for example, in connection with purchase price allocations, and revenue realization in some areas, particularly in regard to the realization of variable consideration within the meaning of IFRS 15.

In individual cases, the actual values may differ from the assumptions and estimations made, so it may be necessary to adjust the measurement of assets and liabilities recognized in the financial statements. Changes are made to estimations in accordance with IAS 8 when more reliable information becomes available and these may have an impact on the figures in the period in which the changes are made and, where applicable, on subsequent periods. If the actual results deviate from estimations that are relevant for the financial statements, or if the estimations have to be adjusted in a future period, this may have a significant impact on the presentation of the Group's net assets, financial position and results of operations.

/ In view of the customary long-term nature of engine programs, considerable estimations are required, for example, on volume, price and cost structures, the time period for the provision of the work and services and the corresponding consideration within the program. These can have a very significant impact on accounting and thus on the recognition of revenue for the program-related assets. The principal components of program-related assets, alongside the acquired program assets, are the capitalized imbalance payments for developments, capitalized development work, inventories, contract assets and program-related financial assets.
/ In the process of determining impairment losses, estimations are made concerning such parameters as the source, timing and amount of the impairment risks. Many different factors can give rise to an impairment loss, e.g., changes in the competitive situation, expectations concerning the growth of air travel and the aircraft industry, changes in the cost of capital, exchange rates, changes in the future availability of financing funds, aging and obsolescence of technologies, replacement costs, or purchase prices for the corresponding assets or sets of assets. If the actual results deviate from these estimations, or if these estimations have to be adjusted in a future period, this may have an impact on the presentation of the Group's net assets, financial position and results of operations. Further details of impairment testing can be found in *Note 14. Intangible assets* and *Note 17. Acquired program assets.*
/ Refund liabilities, especially for warranty and liability risks, result from MTU's specific compensation obligations to the relevant OEM arising from its stakes in consortia for commercial engine programs (OEM business). Accounting for these refund liabilities requires considerable judgment and necessarily has to be based on the associated estimations made by the engine OEMs, which manage the relevant relationships with program customers. In this context, with regard to the reporting period and the previous year, attention should be drawn specifically to the compensation obligations relating to the GTF™ fleet management plan to offset the reduced service life of powder metal components in the PW1100G-JM engine program. As a consequence of the GTF™ fleet management plan, the OEM gave assurances to program customers in fiscal year 2023, which affect MTU as a consortium partner. In order to measure these, substantial estimations have to be made regarding the scope and timing of the measures and the resulting restrictions on the use of the associated aircraft. Further details of the joint liability for assurances relating to the compensation of contractual partners of the PW1100G-JM program in connection with the GTF™ fleet management plan can be found in the *GTF™ fleet management plan section below and in Note 31. Refund liabilities*.
/ In view of the sector's customary spread of expected margins in the series or new parts business, on the one hand, and in the spare parts or aftermarket business, on the other, the assumed "marketing mix" in the commercial OEM programs (OEM segment) has a considerable influence on the determination of the fair values of program-specific assets such as inventories and contract assets, and liabilities such as refund and contract liabilities.
/ The management recognizes valuation allowances for expected credit losses from receivables, contract assets, other financial assets and cash and cash equivalents. Valuation of the expected credit loss and the hedging instruments used to offset this requires the use of estimations based on assumptions.
/ In certain cases, financial liabilities may be linked to deferred, conditional purchase price components. Determination of the fair value of such liabilities requires predictions about the future development of the parameters affecting their development. These comprise, on the one hand, publicly available market data (interest rate, U.S. dollar exchange rate) and, on the other, input parameters that are not publicly available – specifically, in this case, the number of flight hours on which payments are based for part of the V2500 engine fleet in the period up to 2027. To predict the future number of flight hours, MTU makes use of an in-house forecasting model that is based on internally as well as externally available information concerning the in-service V2500 fleet. The sensitivity analysis takes into account both the absolute number of flight hours on which payments are based and the time period within which these hours arise. Further details of the financial liability relating the increase in the stake in the IAE V2500 can be found in *Note 28. Financial liabilities*.
/ For revenue recognized at a point in time in connection with the commercial and military engine business, it is necessary to make significant estimations of invoice amounts due to the delayed timing of invoicing. These estimations cover both fixed and variable revenue components from the stakes in the revenue of the relevant consortia. The variable revenue component is determined by revenue from the sale of engine modules and parts to program

subcontractors and the subsequent marketing of the engine maintenance services provided by those subcontractors (maintenance and repair service providers) to program customers (airlines, leasing companies, etc.). Estimations are required, in particular, with regard to the refund liabilities relating to the variable revenue components and, in individual cases, the subsequent measurement of contract assets and liabilities.

- Revenue recognized over time is accounted for according to progress, if it is sufficiently probable that future economic benefits associated with the business will flow to MTU. Because in some cases it may not be possible to reliably estimate the outcome, revenue calculated according to progress is recognized on the basis of the contract costs incurred up to the reporting date, to the extent that it is probable that these costs can be recovered. The measurement uncertainty is consistent with the complexity and long-term nature of the respective customer contract. Management regularly reviews its estimations made in connection with these customer contracts, making adjustments to the accounting where necessary. In the event that performance progress is determined by measuring services already provided, the scope for discretion is significantly lower, since this is based on the milestones agreed with the customer.
- Income taxes must be determined for each tax jurisdiction in which the Group operates. Estimates are required when measuring actual and deferred taxes. The utilization of deferred tax assets depends on the possibility of generating sufficient taxable income in a particular tax category and tax jurisdiction. A variety of factors are used to assess the probability that it will be possible to utilize deferred tax assets, e.g., past operating results, operating business plans and the periods over which losses can be carried forward.
- The total value of provisions for pensions and similar obligations, and therefore the expenses in connection with employees' retirement benefits, are determined using actuarial methods based on assumptions concerning interest rates, choice of optional payment modalities, wage, salary and pension trends, and life expectancy. Changes in these assumptions affect the future amount of pension provisions or the future expenses for pensions. Further details of pension provisions can be found in *Note 25. Pension provisions*.

All assumptions and estimates are based on the prevailing conditions and judgments made at the reporting date. Any subsequent changes occurring before the financial statements are prepared are taken into account in the amounts recognized. Estimations of future business developments also take into account the economic environment of the industry and the regions in which MTU is active, such as are deemed realistic at that time. In order to obtain new information, MTU also relies on the services of external consultants such as analysts, actuaries, appraisers, and tax and legal advisors.

Macroeconomic factors

The development of business in the reporting period was affected by macroeconomic factors, which have to be taken into account when preparing the financial statements in view of the assumptions and estimations made. Corporate planning requires forecasting of the developments of relevance for MTU as regards the availability and inflation trend for fuel, supply chain and personnel capacities, exchange rates and other capital market terms. These factors affect the estimations used to derive the fair value of intangible assets, program assets, inventories, contract assets, receivables and refund liabilities.

Negatively impacted by multiple crises, the environment is intensifying uncertainty surrounding estimates in regard to forecasting information for the financial statements, particularly for deriving the fair values of assets and liabilities, and in regard to the mid- and long-term outlook for MTU's results of operations and liquidity situation. Against this backdrop, MTU strives to apply the parameters affected by macroeconomic factors with due diligence during the corporate planning process. In addition, the Group continues to utilize options for mitigating macroeconomic effects by means of compensating measures such as strategic inventory management, implementing alternative energy sources and concluding forward contracts, especially to compensate for commodity price risks and currency risks. In its corporate planning, MTU assumes that there will be no short-term stabilization of the international energy, commodity and capital markets and supply chains relative to the status quo.

The scenario used for multi-year corporate planning is based on the assumptions described in the forecast in section 2.

With regard to the commercial engine business (OEM segment) and the commercial engine maintenance business (MRO segment), the assumption is that both passenger kilometers and aircraft deliveries will rise in 2025. IATA assumes that passenger traffic will increase by 8% and cargo traffic by 6%. As a result, high demand for maintenance work is expected, especially for the GTF engine program and for the V2500 and CFM56 programs, for all of which MTU performs extensive MRO services. In the cargo market, MTU also participates in the MRO segment through the CF6-80C and PW2000 engine programs and therefore expects a correspondingly stable level of capacity utilization. Alongside the expected spare parts business, the commercial engine business (OEM segment) is linked to aircraft deliveries. Here, Airbus has announced, for example, that it will be raising the production rate for its top-selling A320neo family to 65 aircraft per month by 2027. MTU participates in this through its stake in the PW1100G-JM GTF engine. Boeing is also planning to increase production - for example of the 787 from 5 to 10 aircraft per month by 2026. Further information on revenue from the commercial engine business can be found in Note 1. Revenue.

In the military engine business, the most important programs for MTU at present are the EJ200 for the Eurofighter, the TP400-D6 for the A400M and the New Generation Fighter Engine (NGFE) for the Future Combat Air System (FCAS). Deliveries of the A400M are planned to continue up to around 2030, including as part of export marketing, while production of the Eurofighter has been secured through the mid-2030s. The FCAS program is currently at demonstrator phase 1B. The first flight with a development prototype is still scheduled for 2030. MTU is not involved in the €100 billion supplementary funding provided by the German government for equipment for the German armed forces. However, it can be assumed that defense spending in the NATO member states will increase by about 7% p.a. in the coming years (compared with about 1% in 2011 to 2020) in the wake of the Russia-Ukraine war and increased geopolitical tensions in the Middle East and Asia. Against this backdrop, there will be growth potential for the military sector. The joint venture EURA SAS established by MTU and Safran for the Propulsion System for Next Generation Rotorcrafts as part of the published European Defence Fund project 2025 underlines this trend. In addition, MTU benefits from expanding military fleets and higher demand for spare parts for maintenance. Further information on revenue from the military engine business can be found in Note 1. Revenue.

Climate change

The impacts of climate change were taken into consideration by the management, to their best judgment, in the preparation of the consolidated financial statements, both in terms of assessing the company's continuation as a going concern and deriving fair values, e.g., in the context of evaluating impairment risks. In the final analysis, MTU assumes that the measures to prevent or offset climate change are unlikely to have a material effect on the product lifecycles of those engine programs in which the Group is currently invested or involved – neither in the OEM nor in the MRO segment. Here, MTU takes into account the potential impact of the EU Green Deal, which is derived from the 1.5°C target of the Paris Agreement and aims for climate neutrality by 2050.

The impact of climate change on the engine programs of relevance for MTU was analyzed, in particular, with a view to the development of demand for passenger and cargo traffic and scope for substitution of MTU engines by propulsion technologies (aircraft engines) that offer a comparable function with far lower emissions.

From the present viewpoint, taking into account maturity level and aviation regulations, the fields in which MTU currently operates will not be affected by substitution risks in the foreseeable future. MTU monitors and analyzes developments in the field of electric motors, batteries and, especially, fuel cells and takes part in studies on the technological development of these promising technologies for emission-free flying, partly to allow early identification of developments that could adversely affect its established business and, at the same time, to invest in such developments and benefit from the associated opportunities. For these reasons, MTU – also in conjunction with its partners – is already developing technologies for hybrid-electric and fuel-cell-based propulsion systems. In parallel, MTU is permanently working to improve the efficiency of conventional engine technology, thus continuously raising the ecological and economic access barriers for any substitute products.

In addition to the substitution risks, risks could arise from climate-related regulations in the future which, in turn, would have to be partially offset by gradual efficiency improvements in existing engine technologies and the increasing availability of sustainable fuels. CO_2 emissions are priced already under CORSIA and the EU ETS. In addition, the EU is considering further charges on non-CO_2 effects, which arise primarily from nitrogen oxides and condensation trails, which also have negative impacts on the climate. To mitigate future regulatory risks, MTU is working with its partners on continuous reductions in the climate effect of gas turbines and is, moreover, investing in fuel-cell technology, which allows virtually emission-free flying.

MTU is monitoring developments in this area very carefully and is evaluating emerging substitution options and regulatory activities with regard to potential impacts on its net assets, financial position and results of operations.

This assessment is accompanied by ambitious actions to enable the vision of climate-neutral flying to be fulfilled. These measures are set out in the ecoRoadmap, which MTU has been rolling out stepwise at its international sites since 2020. The funding necessary to realize the planned measures is included in the multi-year corporate planning which forms the basis for the forward-looking information for the financial statements and for determining fair values. To manage and further improve its activities, MTU continuously monitors greenhouse gas emissions in the production and maintenance of engines and modules at its sites using the recognized international Greenhouse Gas (GHG) Protocol. MTU strives to achieve a lasting reduction in GHG emissions.

Moreover, in its disclosures pursuant to Regulation (EU) 2020/852 (Taxonomy Regulation), MTU reports that significant proportions of its revenue, operating expenditures and capital expenditures are related to sustainable activities.

More detailed reporting pursuant to the Taxonomy Regulation can be found in the *Disclosures pursuant to Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation)* in the sustainability statement.

GTF™ fleet management plan (powder metal issue)

In the third quarter of the previous year, the OEM of the PW1100G-JM engine program, Pratt & Whitney (P&W), announced that it had reached agreement with the Federal Aviation Authority (FAA) in the USA on a precautionary reduction in the service life of specific GTF powder metal components as a result of potential contamination. To compensate for the shorter service life of the affected components, which is the result of reduced maintenance cycles and the associated restrictions on the operation of aircraft with the PW1100G-JM engine, the OEM had initiated an extended GTF™ fleet management plan.

In view of this, P&W felt compelled in 2023 to make a public assurance of support for PW1100G-JM customers. With regard to this matter, compensation was to be granted in individual cases and to a limited extent, even beyond the contractual claims provided by PW1100G-JM consortium.

The estimations required for accounting decisions on this matter are based to a considerable extent on estimates and information from the OEM P&W (RTX), especially as regards the financial impact of the GTF™ fleet management plan to deal with the powder metal issue. According to RTX, the assumptions and judgments relate, most notably, to the number and expected timing of shop visits, inspection results and scope of work to be performed, turnaround time, availability of parts, available capacity at overhaul facilities and outcomes of negotiations with impacted customers of the PW1100G-JM program.

Based on the findings from the implementation of the GTF™ fleet management plan, the assessments regarding the operational burdens and financial charges of the PW1100G-JM program and its consortium partners were updated. Overall, the charges derived on this basis during the reporting year and in the previous year are confirmed, and these charges underlie the provisions recognized in this context in the previous year and in the reporting year. It should be noted that the period until the GTF™ fleet management plan is finalized is currently expected to extend into 2026, which means that the associated risk/reward profile requires further significant assessment.

Similarly, MTU identifies the need for assumptions and assessments of the value drivers communicated by RTX and P&W with a view to modeling the effects of the GTF™ fleet management plan (see RTX 10-K filing dated February 25, 2025) on the net assets, financial position and results of operations of the MTU Aero Engines AG Group. Therefore, possible future modification of these assumptions and, as a result, of estimations of the charges resulting from this matter, along with a corresponding deviation in the actual claims on MTU, could have a considerable impact on the presentation of the Group's assets, financial position and results of operations in the future.

II. Notes to the consolidated income statement

1. Revenue

The revenue of €7,411 million (previous year: €5,363 million) comprises revenue of €7,125 million (previous year: €5,265 million) from contracts with customers (IFRS 15) and revenue of €286 million (previous year: €98 million) from leasing transactions (IFRS 16), technology funding grants (IAS 20) and other support services, and the impact on revenue from the currency result. To clarify, it should be noted again that revenue from leasing transactions, technology funding grants, other support services and the impact on revenue from the currency result is not revenue in accordance with IFRS 15. Revenue developed as follows in the reporting period:

Revenue

in € million	Revenue recognized at a point in time	Revenue recognized over time	Other revenue	Jan. 1 to Dec. 31, 2024	Revenue recognized at a point in time	Revenue recognized over time	Other revenue	Jan. 1 to Dec. 31, 2023 [1]
Commercial engine business	1,719	5		1,724	656	12		668
Military engine business	170	442		612	199	339		538
Other revenue			118	118			44	44
Commercial and military engine business (OEM segment)	**1,889**	**447**	**118**	**2,454**	**854**	**351**	**44**	**1,249**
Commercial maintenance business	236	4,628		4,863	215	3,927		4,141
Other revenue			203	203			83	83
Commercial maintenance business (MRO segment)	**236**	**4,628**	**203**	**5,066**	**215**	**3,927**	**83**	**4,225**
Consolidation	-37	-37	-35	-109	-32	-50	-29	-111
Total revenue	**2,088**	**5,037**	**286**	**7,411**	**1,037**	**4,228**	**98**	**5,363**

[1] Prior-year figures restated.

Other revenue

in € million	2024	2023 [1]
Leasing (IFRS 16)	179	106
Technology funding grants (IAS 20)	27	29
Currency result	66	–45
Other support services	49	37
Consolidation	–35	–29
Total other revenue	**286**	**98**

Companies in the OEM segment generated internal revenue of €75 million with companies in the MRO segment, while companies in the MRO segment generated internal revenue of €35 million with companies in the OEM segment.

Revenue included €732 million (previous year: €745 million) in connection with contract liabilities deferred at the beginning of the year.

Furthermore, revenue of €22 million recognized in the reporting period (previous year: €19 million) related to performance obligations satisfied in prior periods. The background to this is, in particular, the determination of variable consideration components in the reporting period.

The proportion of turnover (revenue) identified as taxonomy-eligible within the meaning of the EU Taxonomy for sustainable economic activities and further disclosures on the EU taxonomy can be found in the *section Disclosures on the EU Taxonomy in the non-financial statement in the management report*.

The Group generates its revenue in the following geographical areas:

Revenue according to customer's country of domicile

in € million	2024	2023
Germany	766	671
Europe (excluding Germany)	461	404
North America (especially USA)	5,188	3,597
Asia	658	376
Other regions	337	315
Total revenue	**7,411**	**5,363**

In the reporting period, approximately 70% (previous year: 67%) of MTU's revenue was generated from business with customers in North America, with the US market accounting for a share of 66% (previous year: 62%).

The cumulative transaction price, including estimated variable components, attributable to the unfulfilled performance obligations as at December 31, 2024, i.e., the order backlog, was €28.7 billion (previous year €24.4 billion). Of this cumulative transaction price, €5.5 billion will be recognized in revenue within one year, €12.5 billion will be recognized in revenue within two to five years, and €10.6 billion is expected to be recognized in revenue after five and within 25 years.

A more detailed presentation of revenue, broken down by external and intersegment revenue and their attribution to major customers, is provided in the *consolidated segment report*. Additional information can be found in the *disclosures relating to operating results in the combined management report*.

2. Cost of goods sold

Cost of goods sold

in € million	2024	2023
Cost of materials	-4,819	-4,148
Personnel expenses	-952	-879
Depreciation and amortization (incl. impairment losses)	-325	-274
Other cost of goods sold	-126	-44
Currency translation effects	-48	22
Cost of goods sold	**-6,270**	**-5,322**
Capitalized development costs	93	77
Total cost of goods sold	**-6,178**	**-5,245**

Tracking the higher business volume, cost of goods sold rose compared with the previous year. In terms of gross profit, the commercial and military engine business (OEM) benefited overall from a more favorable revenue mix in the new engine business relative to the previous year, with a higher proportion of replacement and lease engines as well as high demand for spare parts for the continued operation of engines used to power more mature aircraft models, such as the A320ceo or the Boeing 767. When making the comparison to the prior-year period, it should be taken into account that gross profit was negatively impacted in the reporting period by revenue reductions and expenses of €12 million and €9 million respectively due to impairment losses recognized on the stake in the T408 program for reasons of business performance. Another factor was the alignment of the stakes in the PW1500G/PW1900G programs with the effective amount of goods and services, which was agreed in the reporting year. A consequence of this alignment was the adjustment of existing assets and liabilities under these programs, which led to a contribution to gross profit of U.S.$44 million.

In relation to the commercial maintenance and repair business (MRO), gross profit benefited from the revenue mix realized in the reporting year. Compared to the previous year, there was an increase in the relative share of the higher-margin maintenance and repair business, which does not depend on OEMs, as well as that of the engine leasing and asset management business.

All in all, especially in view of the considerable exceptional charges to revenue and the cost of goods sold from the GTF™ fleet management plan to be included in the previous year, gross profit rose significantly. Gross margin (ratio of revenue less cost of goods sold to revenue) increased from 2.2% in the previous year to 16.6% in the reporting period.

3. Research and development expenses

Company-funded research and development expenses developed as follows:

Research and development expenses

in € million	2024	2023
Cost of materials	-64	-69
Personnel expenses	-36	-40
Depreciation and amortization	-2	-2
Other development costs	-3	-3
Research and development expenditure	**-106**	**-114**

More information can be found in the *Research and development section of the combined management report*.

4. Selling expenses

Selling expenses

in € million	2024	2023
Cost of materials	-29	-29
Personnel expenses	-89	-85
Depreciation and amortization	-1	-2
Other selling expenses	-19	-25
Total selling expenses	**-138**	**-141**

Selling expenses comprise the use of funds in the form of material and personnel expenses for marketing, advertising and media relations, as well as for customer relationship and receivables management. The increase in personnel expenses contained in selling expenses was driven by the business trend and the effects of inflation.

The other selling expenses contain amounts relating to valuation allowances for expected credit losses relating to trade receivables and the derecognition of actual credit losses on trade receivables. Further information on valuation allowances can be found in *Note 20. Trade receivables* and *Note 21. Contract assets*.

5. General administrative expenses

General administrative expenses

in € million	2024	2023
Cost of materials	-10	-11
Personnel expenses	-87	-76
Depreciation and amortization	-3	-4
Other administrative expenses	-28	-19
Total general administrative expenses	**-128**	**-109**

General administrative expenses comprise the use of funds in the form of material and personnel expenses for administrative activities that cannot be directly allocated to development, production or sales activities.

6. Other operating income and expenses

Other operating income and expenses

in € million	2024	2023
Income		
Gains from the disposal of intangible assets and property, plant and equipment	4	0
Income from insurance cases	1	21
Hedge income (foreign exchange risk, hedging)		6
Rental income from property owned by MTU	2	2
Rental income from sublet property owned by third parties	0	0
Income from public sector grants and assistance	0	1
Miscellaneous other operating income	30	13
Total other operating income	**38**	**43**
Expenses		
Losses from the disposal of intangible assets and property, plant and equipment	-1	-2
Expenses from insurance cases	-4	-2
Hedging costs (foreign exchange risk, hedging)	-48	-51
Rental payments for sublet property	-0	-1
Miscellaneous other operating expenses	-6	-2
Total other operating expenses	**-59**	**-57**
Net other operating income/expenses	**-21**	**-14**

The balance of other operating income and expenses was particularly influenced by the development of income unrelated to the accounting period resulting from the reimbursement of foreign transaction taxes in the reporting year and from insurance reimbursements in the previous year.

7. Profit/loss of companies accounted for using the equity method and of equity investments

Profit/loss of companies accounted for using the equity method and of equity investments

in € million	2024	2023
Profit/loss of companies accounted for using the equity method		
Associates	41	26
Joint ventures	81	71
Total profit/loss of companies accounted for using the equity method	**122**	**97**
Profit/loss of equity investments		
Cooperation companies	0	0
Other related companies	-7	2
Total profit/loss of equity investments	**-7**	**2**

The main driver of the profit/loss of companies accounted for using the equity method in 2024 was the positive business development at the associate PW1100G-JM Engine Leasing LLC, East Hartford, CT, USA and the joint venture MTU Maintenance Zhuhai Co. Ltd., Zhuhai, China. Earnings in the reporting year were negatively impacted by business-related write-downs of company participations in the amount of €10 million.

Information on companies accounted for using the equity method is provided in *Note 16. Financial assets*.

8. Net interest income/expense

Net interest income/expense

in € million	2024	2023
Interest income	**39**	**29**
Interest expense		
Bonds and notes	-29	-20
Convertible bonds	-4	-4
Liabilities to banks	-1	-0
Lease liabilities	-8	-4
Other interest expense	-24	-16
Capitalized borrowing costs for qualifying assets	5	3
Interest expense	**-60**	**-41**
Net interest income/expense	**-22**	**-12**

The rise in interest income compared with the previous year is attributable to the significantly higher amount of MTU's liquidity reserve, while short-term interest rates declined in the course of the year. The increase in other interest expense is mainly due to the interest accrued on the two promissory notes issued in 2024. In addition, the issuance of another corporate bond in 2024 had a corresponding impact on interest expense on bonds and notes.

The borrowing costs capitalized in the reporting period relate to qualifying assets acquired or constructed mainly in connection with the Group's stake in the PW800 engine program and the construction of new buildings at the Munich site. The capitalized amount was determined using a cost of debt of 3.3% (previous year: 2.7%).

9. Other financial income/expense

Other financial income/expense

in € million	2024	2023
Effects of currency translation: exchange rate gains/losses on		
currency holdings	12	3
financing transactions	-10	-0
lease liabilities	-4	2
Fair value gains/losses on derivatives		
Currency derivatives (exchange rate risks/hedging)	0	2
Commodity forwards	-3	-13
Interest included in measurement of assets and liabilities		
Pension obligations and plan assets	-27	-28
Receivables, other provisions and liabilities	-7	2
Miscellaneous other financial income/expense	1	1
Other financial income/expense	**-38**	**-32**

The effects from measurement of foreign currency holdings mainly relate to the change in the U.S. dollar exchange rate prevailing on the reporting date, from U.S.$1.11 to U.S.$1.04 to the euro in 2024. The amounts recognized for pension obligations and plan assets were affected by the change in the discount rate compared with the previous year. Further details can be found in Note 25. Pension provisions.

10. Income taxes

Recognized income taxes comprise current income taxes paid or payable in the countries in which the Group operates, and deferred tax income or expense.

Analysis of current and deferred income taxes

in € million	2024	2023
Tax expense incurred in current period	-200	-155
Tax expense (-)/tax income incurred in prior periods	-22	-2
Current income taxes	**-222**	**-156**
Deferred tax expense (-)/tax income resulting from temporary differences	-27	264
Deferred tax expense (-)/tax income resulting from tax credits	-5	1
Deferred tax expense (-)/tax income resulting from tax losses carried forward	0	0
Deferred income taxes	**-31**	**265**
Income tax expense (-)/ income	**-253**	**108**

The tax expense does not include the Group's share of the tax expense of financial assets accounted for using the equity method, which amounted to €15 million (previous year: €15 million) and is included in profit/loss of companies accounted for using the equity method in the consolidated income statement. Information on changes in deferred tax assets and liabilities is provided in Note 34. Deferred taxes.

Tax reconciliation

As a basic principle, deferred tax assets and liabilities are measured using the applicable tax rate for the period when the asset is realized or the liability is settled, based on current tax legislation in the countries concerned.

In the reporting period, as in the previous year, the deferred taxes of the German Group companies were measured using a regular income tax rate of 32.2%. The income tax rate for the domestic tax group of MTU Aero Engines AG is still comprised of the uniform corporation tax rate of 15.0% plus a solidarity surcharge of 5.5% on the calculated corporation tax expense and takes into account an average municipal trade tax rate of 16.4%.

The deferred taxes of companies outside Germany were determined in each case on the basis of the relevant tax rates for the countries in question, which range between 15% and 27%.

Information on changes in deferred tax assets and liabilities is provided in Note 34. Deferred taxes.

The following table shows the reconciliation of expected tax expense to recognized tax expense:

Tax reconciliation

in € million	2024	2023
Earnings before income taxes	895	-205
Income tax rate	32.2%	32.2%
Expected tax benefit (+)/ expense (-)	**-288**	**66**
Impact of		
recognition and measurement adjustments and write-downs on deferred tax assets	-4	5
non-tax-deductible operating expenses and tax-exempt income	-5	9
lower tax rates for companies outside Germany	18	15
investments accounted for using the equity method	27	18
tax audit and prior periods	2	0
Tax credits available for carry-forward	1	-4
Withholding tax charge and other foreign taxes	-3	-2
Other impacts	-0	2
Income tax benefit (+)/ expense (-)	**-253**	**108**
Effective tax rate	**28.3%**	**52.8%**

BEPS Pillar 2

The BEPS Pillar 2 regulations were transposed into German law (Minimum Tax Act – MinStG) at the end of 2023; they entered into force on January 1, 2024. The Group falls within the scope of this legislation.

As at the reporting date, MTU AG performed an analysis to determine the impact and jurisdictions in which the MTU Group could be exposed to possible effects in connection with Pillar 2 minimum taxation.

As the first step, it examined whether the CbCR safe harbor rules are applicable to MTU's global activities. MTU's activities fall within the CbCR safe harbor rules in the respective countries, meaning that MTU AG has no minimum tax liabilities as at December 31, 2024.

MTU AG is keeping a close eye on the progress of the legislative process in each country where it operates.

MTU applies the exception permitted by IAS 12 and does not recognize deferred tax assets and liabilities in connection with the BEPS Pillar 2 income taxes, nor does it make any related disclosures.

11. Earnings per share

To determine diluted earnings per share, the number of common shares that could potentially be issued through the granting of equity instruments is added to the weighted average number of outstanding shares.

The net income attributable to shareholders of MTU Aero Engines AG amounted to €633 million (previous year: €-102 million).

In the reporting period, the weighted average number of outstanding shares was 53,778,080 (previous year: 53,691,433 shares). Based on these parameters, basic earnings per share amounted to €11.77 (previous year: €-1.90).

Dilutive effects arose from 1,321,265 shares (previous year: 1,395,418 shares) that could potentially be issued through the convertible bond issued by MTU. The resulting saving on interest led to diluted net income attributable to the shareholders of MTU Aero Engines AG amounting to €635 million (previous year: €-99 million), and this produced earnings per share of €11.53 (previous year: €-1.90).

12. Additional disclosures relating to the income statement

Reconciliation to adjusted key financial figures – results of operations

This reconciliation of the consolidated income statement is used to eliminate special items, in particular material and above all aperiodic contributions to operating earnings from the key financial figures of the Group and its business segments. The aim is to measure the success of managing operating activities in the reporting period and, at the same time, to provide financial information for efficient comparison with different periods and companies. The adjusted figures therefore do not come under the provisions of the International Financial Reporting Standards (IFRSs); in the sense of alternative performance measures (APMs), they are to be seen as a complement to the key financial indicators reported pursuant to IFRSs.

To describe financial performance, MTU reports the following adjusted key figures:

- adjusted revenue
- adjusted earnings before interest and taxes (adjusted EBIT) and (adjusted) EBIT margin, and
- adjusted net income.

References to adjusted key figures within the approved compensation system for the Executive Board are always made on the basis of consent by the Supervisory Board to the calculation methods described below.

Adjusted revenue

Revenue determined in accordance with IFRS standards is adjusted for the following special items in order to calculate adjusted revenue for the reasons of providing adjusted key figures described above:

- "Effects from the increase in the stake in IAE-V2500": The increase in MTU's stake in the Pratt & Whitney IAE-V2500 program in 2012 was accounted for as the addition of a program asset. Since then, this asset has been amortized through profit or loss over the expected remaining useful life of the program, thereby reducing revenue, and the corresponding earnings impact has been eliminated as a special item in the reconciliation to adjusted revenue.
- "Effects from the GTF™ fleet management plan": In 2023, considerable commitments were made under the GTF™ fleet management plan to make compensation payments to PW1100G-JM program customers. As a result, MTU has an obligation to OEM Pratt & Whitney relating to its stake in the consortium for the PW1100G-JM program; for this purpose, it recognized a provision for refund liabilities through profit or loss (reducing revenue). Effects on profit or loss in connection with the initial recognition and subsequent measurement of those refund liabilities are eliminated as a special item in the reconciliation to adjusted revenue.
- "Significant non-period earnings impacts": Taking the materiality criterion specified for the reporting year (threshold: €45 million) into account, material non-period effects on revenue are eliminated in the reconciliation to adjusted revenue. In principle, this guidance is applied where the effect on revenue is significant, especially in connection with stakes in consortia for engine programs, due to impairment losses, the risk of legal action and lawsuits and changes in the consolidated group. The materiality criterion in the form of a threshold was defined from fiscal year 2024 onward. Accordingly, the reconciliation for the prior-year period is made independently in accordance with the prior-year reporting rules.

Adjusted EBIT and adjusted EBIT margin

The earnings indicator EBIT determined in accordance with IFRS standards is adjusted for the following special items in order to calculate adjusted EBIT for the reasons of providing adjusted key figures described above:

- "Effects from the purchase price allocation": As at January 1, 2004, MTU passed into the ownership of Kohlberg Kravis Roberts & Co. Ltd. (KKR), following the latter's purchase of 100% of the MTU shares from the then DaimlerChrysler AG. In the context of the acquisition, assets, liabilities and contingent liabilities were identified in accordance with IFRS 3 and measured at fair value. Since then, the identified intangible assets, in particular, have resulted in substantial amortization. The resulting earnings impacts are eliminated as special items in the reconciliation to adjusted EBIT.
- "Effects from the increase in the stake in IAE-V2500": The increase in MTU's stake in the Pratt & Whitney IAE-V2500 program in 2012 was accounted for as the addition of a program asset. Since then, this asset has been amortized through profit or loss over the expected remaining useful life of the program, thereby reducing revenue, and the corresponding earnings impact is eliminated as a special item in the reconciliation to adjusted EBIT.
- "Effects from the Geared Turbofan fleet management plan": In 2023, considerable commitments were made under the GTF™ fleet management plan to make compensation payments to PW1100G-JM program customers. As a result, MTU has an obligation to OEM Pratt & Whitney relating to its stake in the consortium for the PW1100G-JM program; for this purpose, it recognized a provision for refund liabilities through profit or loss (reducing revenue). Effects on profit or loss in connection with the initial recognition and subsequent measurement of those refund liabilities are eliminated as a special item in the reconciliation to adjusted EBIT.
- "Material aperiodic contributions to earnings": Taking into account the materiality criterion (threshold: €45 million) defined for the reporting year, material aperiodic contributions to earnings are eliminated in the calculation of adjusted EBIT. In principle, this guidance is applied where the contribution to earnings is significant due to impairment losses, the risk of legal action and lawsuits, restructuring programs and changes in the consolidated group. The materiality criterion in the form of a threshold was defined from fiscal year 2024 onward. Accordingly, the reconciliation for the prior-year period is made independently in accordance with the prior-year reporting rules.

The adjusted EBIT margin is determined as the ratio of adjusted EBIT to adjusted revenue, expressed as a percentage.

Adjusted net income

The earnings indicator EBIT determined in accordance with IFRS standards is adjusted for the following special items in order to calculate adjusted earnings before income taxes for the reasons of providing adjusted key figures described above:

- "Effects from the purchase price allocation": As at January 1, 2004, MTU passed into the ownership of Kohlberg Kravis Roberts & Co. Ltd. (KKR), following the latter's purchase of 100% of the MTU shares from the then DaimlerChrysler AG. In the context of the acquisition, assets, liabilities and contingent liabilities were identified in accordance with IFRS 3 and measured at fair value. Since then, the identified intangible assets, in particular, have resulted in substantial amortization. The resulting earnings impacts are eliminated as special items in the reconciliation to adjusted EBIT.
- "Effects from the increase in the stake in IAE-V2500": The increase in MTU's stake in the Pratt & Whitney IAE-V2500 program in 2012 was accounted for as the addition of a program asset. Since then, this asset has been amortized through profit or loss over the expected remaining useful life of the program, thereby reducing revenue, and the corresponding earnings impact is eliminated as a special item in the reconciliation to adjusted EBIT.
- "Effects from the Geared Turbofan fleet management plan": In 2023, considerable commitments were made under the GTF™ fleet management plan to make compensation payments to PW1100G-JM program customers. As a result, MTU has an obligation to OEM Pratt & Whitney relating to its stake in the consortium for the PW1100G-JM program; for this purpose, it recognized a provision for refund liabilities through profit or loss (reducing revenue). Effects on profit or loss in connection with the initial recognition and subsequent measurement of those refund liabilities are eliminated as a special item in the reconciliation to adjusted EBIT.
- "Significant non-period earnings impacts": Taking the materiality criterion specified for the 2024 reporting year (threshold: €45 million) into account, material non-period effects on earnings are eliminated in the reconciliation to adjusted EBIT. In principle, this guidance is applied where the contribution to earnings is significant due to impairment losses, the risk of legal action and lawsuits, restructuring programs and changes in the consolidated group. The materiality criterion in the form of a threshold was defined from fiscal year 2024 onward. Accordingly, the reconciliation for the prior-year period is made independently in accordance with the prior-year reporting rules.

Subsequently, net interest income/expense and the interest shares in other financial income/expense, which are mainly connected with provisions for pensions and liabilities from pensions and plan assets, are added to adjusted EBIT. None of the other components of financial income/expense, especially those that are influenced by foreign currency effects, such as the effects of exchange-rate hedging, are taken into account. Finally, the "normalized" taxes on income are deducted from the earnings before tax calculated in this way in order to produce adjusted earnings before tax. "Normalized taxes" are determined using a normalized tax rate for the Group of 27%; the after-tax profit/loss of companies accounted for using the equity method included in adjusted earnings before tax does not form part of the tax base.

Reconciliation of the consolidated income statement

in € million	2024 As reported	2024 Non-recurring items	2024 Adjusted figures	2023 As reported	2023 Non-recurring items	2023 Adjusted figures
Revenue	**7,411**	**77**	**7,488**	**5,363**	**963**	**6,326**
thereof: special item "effects from GTF™ fleet management plan" (OEM segment)		52	52		917	917
thereof: special item "material aperiodic contribution to earnings" (provision for consortial major litigation and claims – OEM segment)[1]					23	23
thereof: special item "effects from increase in the stake in IAE/V2500" (OEM segment)		25	25		23	23
Cost of goods sold	-6,178	19	-6,159	-5,245	34	-5,211
thereof: special item "effects of purchase price allocation" (OEM segment)		19	19		19	19
thereof: special item "effects from GTF™ fleet management plan" (OEM segment)					15	15
Gross profit	**1,233**	**95**	**1,329**	**118**	**997**	**1,115**
Research and development expenses	-106		-106	-114		-114
Selling expenses	-138		-138	-141		-141
General administrative expenses	-128		-128	-109		-109
Other operating income and expenses	-21		-21	-14		-14
thereof: special item "material aperiodic contribution to earnings (impairment losses of assets due to Russia-Ukraine war – MRO segment)[1]					-21	-21
Profit/loss of companies accounted for using the equity method and of equity investments	115		115	99		99
thereof: special item "material aperiodic contribution to earnings (impairment losses of assets due to Russia-Ukraine war – MRO segment)[1]					-0	-0
thereof: special item "material aperiodic contribution to earnings" (provision for consortial major litigation and claims – MRO segment)[1]					3	3
Earnings before interest and taxes (EBIT)	**955**	**95**	**1,050**	**-161**	**979**	**818**
Net interest income/expense	-22		-22	-12		-12
Other financial income – interest included in the measurement of pensions	-27		-27	-29		-29
Other financial income/expense – miscellaneous (e.g. measurement of foreign currency holdings)	-11	11	0	-4	4	0
Earnings before income taxes	**895**	**106**	**1,002**	**-205**	**983**	**777**
Income taxes	-253		-253	108		108
Adjustment based on normalized income taxes		16	16		-292	-292
Net income	**642**	**122**	**764**	**-97**	**691**	**594**

[1] The materiality criterion in the form of a threshold was defined from fiscal year 2024 onward. Accordingly, the reconciliation for the prior-year period is made independently in accordance with the prior-year reporting rules.

The adjusted net income attributable to shareholders of MTU Aero Engines AG amounted to €755 million (previous year: €588 million).

Based on these parameters, adjusted earnings per share amounted to €14.04 (previous year: €10.96).

Adjusted EBITDA

Reconciliation of EBIT to adjusted EBITDA

in € million	2024	2023
Earnings before interest and taxes (EBIT)	**955**	**-161**
Amortization/impairment losses	478	331
Earnings before interest and taxes, depreciation and amortzation (EBITDA)	**1,433**	**171**
thereof: special item "effects from GTF™ fleet management plan" (OEM segment)	52	932
thereof: special item "material aperiodic contribution to earnings (impairment losses of assets due to Russia-Ukraine war – MRO segment)[1]		-21
thereof: special item "material aperiodic contribution to earnings" (provision for consortial major litigation and claims – beide Segmente)[1]		26
Adjusted earnings before interest and taxes, depreciation and amortization (adjusted EBITDA)	**1,485**	**1,108**

[1] TThe materiality criterion in the form of a threshold was defined from fiscal year 2024 onward. Accordingly, the reconciliation for the prior-year period is made independently in accordance with the prior-year reporting rules.

Personnel expenses

Personnel expenses, calculated using the total cost method, were as follows:

Personnel expenses

in € million	2024	2023
Wages and salaries	978	902
Social security, pension and other benefit expenses	176	161
Total personnel expenses	**1,154**	**1,063**

Of the personnel expenses for social security, pension and other benefit expenses, €14 million (previous year: €13 million) is attributable to pensions. The increase in wages and salaries is primarily attributable to the increase in active employees in line with the growth in the operating business. In addition, wage and salary increases led to higher personnel expenses.

Number of employees

The average number of persons employed during the fiscal year breaks down as follows:

Disclosures on the average number of employees

Number	2024	2023
Industrial staff	4,984	4,681
Administrative staff	5,909	5,562
Temporary employees	1,034	1,099
Employees in vocational training	312	299
Interns	269	248
Total average number of employees	**12,508**	**11,889**

Group auditor compensation

The fees charged by the auditor, KPMG AG, Wirtschaftsprüfungsgesellschaft, for fiscal year 2024 in accordance with Section 314 (1) no. 9 of the German Commercial Code (HGB) amounted to €2,744 thousand (previous year: €1,873 thousand). Of the total fees charged, an amount of €380 thousand related to the previous year.

Group auditor compensation

in € thousand	2024	2023
Financial statement auditing services	2,343	1,584
Other assurance services	642	224
Other services		66
Total Group auditor compensation	**2,986**	**1,873**

The fee for financial statement auditing services related to the audit of the consolidated financial statements and the separate financial statements of MTU Aero Engines AG and its subsidiaries and to reviews of the interim financial statements. Other assurance services included confirmations in connection with the energy price brake, the project-related audit of the CSRD implementation, the audit of the sustainability statement and the management compensation report, and the EMIR reporting. Other services include audit services in connection with the issuance of new financial instruments and the issuance of a comfort letter.

Reconciliation to adjusted key financial figures – financial position

This reconciliation of the cash flow statement is used to eliminate special items, in particular material and above all aperiodic non-recurring cash flows from the key financial figures of the Group and its business segments. The aim is firstly to measure the success of the management of operating activities in the reporting year and secondly to provide financial information for an efficient comparison between periods and companies. The adjusted key liquidity figures are not covered by the International Financial Reporting Standards (IFRS) and should be regarded as alternative performance measures (APM) in addition to the key financial indicators reported in accordance with IFRS.

MTU reports the adjusted financial key performance indicator "free cash flow (adjusted)" for the purpose of analyzing liquidity.

Free cash flow (adjusted)

MTU determines free cash flow (adjusted) on the basis of the total cash flows from operating and investing activities as defined in the IFRS regulations. The following non-recurring cash flows are eliminated from this total for the reasons of providing adjusted key figures described above:

/ "Effects from liquidity management": cash flows in connection with interest-bearing, non-speculative financial investments as part of liquidity management.

/ "Effects from sales financing": cash flows in connection with participating in interest-bearing sales financing.

/ "Material aperiodic capital flows": Taking into account the materiality criterion (threshold: €45 million) defined for the reporting year, material aperiodic capital flows are eliminated in the calculation of free cash flow (adjusted). Basic use cases for this are cash flows in connection with changes to the scope of consolidation (M&A activities), the stakes in OEM engine program investments (new entry, increase, sale) and the change in stakes in MRO program investments (new entry, increase, sale). The materiality criterion in the form of a threshold was defined from fiscal year 2024 onward. Accordingly, the reconciliation for the prior-year period is made independently in accordance with the prior-year reporting rules.

Reconciliation of the consolidated cash flow statement

Reconciliation of the cash flow statement

in € million	2024 As reported	2024 Non-recurring items	2024 Adjusted figures	2023 As reported	2023 Non-recurring items	2023 Adjusted figures
Cash flow from operating activities	**714**		**714**	**777**		**777**
Cash flow from investing activities	**–603**	**73**	**–531**	**–420**	**–5**	**–426**
thereof: "effects from sales financing"		–24	–24		–5	–5
thereof: "material aperiodic cash flows" (Prepayments for MRO program shares [new entry])		96	96			0
Free cash flow	**110**	**73**	**183**	**357**	**–5**	**352**

III. Notes to the consolidated balance sheet

13. Changes in intangible assets, goodwill, and property, plant and equipment

Changes in non-financial assets – purchase and production costs 2024

in € million	As of Jan. 1, 2024	Currency translation differences	Changes in the consolidated group 1)	Additions	Transfers	Disposals	As of Dec. 31, 2024
Program assets (purchase price allocation)	670						670
Program-independent technologies (purchase price allocation)	125						125
Customer relationships (purchase price allocation)	57						57
Rights and licenses	280	0		25	5	–3	307
Goodwill	386						386
Development assets	682			59			742
Prepayments on intangible assets	0	0		97			97
Intangible assets & goodwill	**2,200**	**0**		**181**	**5**	**–3**	**2,384**
Land, leasehold rights and buildings, including buildings on third-party land	911	1	7	49	15	–17	965
Technical equipment, plant and machinery	1,033	1	2	50	89	–23	1,152
Other equipment, operational and office equipment	998	1	7	326	26	–145	1,213
Advance payments and construction in progress	181	0	1	183	–135	–0	230
Property, plant and equipment	**3,122**	**2**	**18**	**608**	**–5**	**–185**	**3,559**
Total	**5,322**	**3**	**18**	**789**	**–0**	**–188**	**5,943**

[1] First time consolidation of MTU Maintenance Dallas

Changes in non-financial assets – depreciation/amortization and carrying amount 2024

in € million	As of Jan. 1, 2024	Currency translation differences	Changes in the consolidated group 1)	Additions	Transfers	Disposals	As of Dec. 31, 2024	Carrying amount as of Dec. 31, 2024
Program assets (purchase price allocation)	504			18			523	148
Program-independent technologies (purchase price allocation)	125						125	
Customer relationships (purchase price allocation)	55			0			55	1
Rights and licenses	164	0		21	0	-3	182	126
Goodwill								386
Development assets	152			34			186	556
Prepayments on intangible assets								97
Intangible assets & goodwill	**1,000**	**0**		**73**	**0**	**-3**	**1,070**	**1,313**
Land, leasehold rights and buildings, including buildings on third-party land	265	0	0	33		-3	294	671
Technical equipment, plant and machinery	736	0	1	70	-0	-15	793	359
Other equipment, operational and office equipment	621	0	5	156	-0	-77	705	508
Advance payments and construction in progress								230
Property, plant and equipment	**1,622**	**1**	**7**	**258**	**-0**	**-95**	**1,792**	**1,767**
Total	**2,622**	**1**	**7**	**331**		**-98**	**2,863**	**3,080**

[1] First time consolidation of MTU Maintenance Dallas

Changes in non-financial assets – purchase and production costs 2023

in € million	As of Jan. 1, 2023	Currency translation differences	Additions	Transfers	Disposals	As of Dec. 31, 2023
Program assets (purchase price allocation)	670					670
Program-independent technologies (purchase price allocation)	125					125
Customer relationships (purchase price allocation)	57					57
Rights and licenses	229	1	25	25	-0	280
Goodwill	386					386
Development assets	625		57			682
Prepayments on intangible assets						
Intangible assets & goodwill	**2,092**	**1**	**82**	**25**	**-0**	**2,200**
Land, leasehold rights and buildings, including buildings on third-party land	727	4	53	129	-2	911
Technical equipment, plant and machinery	922	6	24	88	-6	1,033
Other equipment, operational and office equipment	930	2	197	20	-151	998
Advance payments and construction in progress	286	1	155	-261	-0	181
Property, plant and equipment	**2,865**	**13**	**429**	**-25**	**-159**	**3,122**
Total	**4,957**	**14**	**511**	**-0**	**-159**	**5,322**

Changes in non-financial assets – depreciation/amortization and carrying amount 2023

in € million	As of Jan. 1, 2023	Currency translation differences	Additions	Transfers	Disposals	As of Dec. 31, 2023	Carrying amount Dec. 31, 2023
Program assets (purchase price allocation)	486		18			504	166
Program-independent technologies (purchase price allocation)	125					125	
Customer relationships (purchase price allocation)	55		0			55	1
Rights and licenses	146	1	18		–0	164	116
Goodwill							386
Development assets	130		22			152	530
Prepayments on intangible assets							
Intangible assets & goodwill	**941**	**1**	**58**		**–0**	**1,000**	**1,200**
Land, leasehold rights and buildings, including buildings on third-party land	235	1	29	0	–1	265	646
Technical equipment, plant and machinery	677	3	62	–0	–5	736	297
Other equipment, operational and office equipment	569	2	131	0	–82	621	377
Advance payments and construction in progress							181
Property, plant and equipment	**1,481**	**5**	**223**	**0**	**–88**	**1,622**	**1,501**
Total	**2,423**	**6**	**282**	**0**	**–88**	**2,622**	**2,701**

14. Intangible assets and goodwill

Intangible assets comprise program assets, program-independent technologies and customer relationships which were capitalized as part of the purchase price allocation in connection with the acquisition by Kohlberg Kravis Roberts & Co. Ltd. (KKR) on January 1, 2004, of the shareholding in MTU previously held by DaimlerChrysler AG, and acquired goodwill. This item also includes capitalized, internally generated development assets as well as right-of-use assets and licenses, particularly in connection with – mainly technical – software.

In the reporting period, MTU capitalized a total of €181 million (previous year: €82 million) for intangible assets. The main reasons for the sharp rise were high down payments of €96 million for the acquisition of further MRO program stakes and for the growing engine leasing business. Furthermore, €61 million (previous year: €57 million) was for own development work, mainly in connection with the Pratt & Whitney GTF™ engines.

The proportion of additions to intangible assets in the reporting period identified as taxonomy-eligible within the meaning of the EU Taxonomy for sustainable economic activities and further disclosures on the EU Taxonomy can be found in the *section Disclosures on the EU taxonomy in the non-financial statement in the management report*.

Amortization expense of €73 million on intangible assets (previous year: €58 million) was recognized in cost of goods sold.

In line with MTU's standard practice, impairment losses are determined at the level of the stake in OEM engine programs (cash-generating units) by comparing the value in use of the relevant engine programs, calculated using the DCF method, with the corresponding net program assets. In addition to capitalized development assets, program assets, imbalance payments for development work (acquired development work), net program assets include the attributable property, plant and equipment, inventories, contract assets and trade receivables. Relevant program obligations, especially refund liabilities, are reflected as reductions in this context.

In the fiscal year, impairments of assets from the stake in the T408 program in the amount of €21 million were recognized against income. Of the impairments recognized, €9 million related to capitalized internally generated development assets and €12 million to the line item "Acquired program assets, development work and other assets".

The recoverable amount was calculated at €69 million. The value in use on which this was based was calculated using program-specific annual earnings and cash flow projections for the remaining term of 17 years. Weighted average capital costs of 8.53% were used as the discount factor. Further information on this matter can be found in *Note 2. Cost of goods sold* and *Note 12. Additional disclosures relating to the income statement*.

Additional information on impairment testing can also be found in *section I. Accounting policies and principles – Discretionary scope, measurement uncertainties and sensitivity*.

Goodwill reported in intangible assets is allocated to the operating segments as follows:

Goodwill of operating segments

in € million	Dec. 31, 2024	Dec. 31, 2023
Commercial and military engine business (OEM segment)	304	304
Commercial maintenance business (MRO segment)	82	82
Total goodwill	**386**	**386**

Goodwill was tested for impairment in the reporting period as in previous years. For information on the basic approach, please refer to *Impairment of intangible assets, property, plant and equipment, acquired program assets and acquired development work in Section I. Accounting policies and principles*. As in previous years, the regular impairment test of the goodwill of the operating segments uses June 30, 2024, as the valuation date.

The value in use calculations are based on the following assumptions: The first step involves the use of models to predict future changes in the engine fleet and the corresponding market shares of engines for which MTU holds or expects to hold supply responsibility (OEM segment) or that are or will be of significance to its service business, especially in the MRO segment. MTU applies these forecasts systematically as a basis for its revenue and corresponding capacity planning, from which the planned EBIT and cash flows for each of the two business segments are derived. The outcome of this process is therefore necessarily based on expectations as regards future market shares and growth in the individual markets, the profitability of products, available supply chain and personnel capacity, and macroeconomic developments such as trends in exchange rates, interest rates and commodity prices against a backdrop of decisions related to climate policy and geopolitics. The values in use, and the corresponding carrying amounts, are determined without reference to financing activities.

In the OEM segment, the calculation of cash flow used to determine the value in use is based on average revenue growth in the mid-single digit percentage range in the five-year planning period. The EBIT margin is expected to grow at average rates in the low-teens percentage range. The weighted cost of capital before taxes (discount rate) applied here was 13.3% (previous year: 11.4%). The main reasons for the increase in the weighted cost of capital were a higher beta factor for the cost of equity and higher borrowing costs, particularly as a result of the regular review and the adjustment of the referenced peer group in the reporting year. Since the detailed planning period in the OEM segment depends on the pricing typical for the commercial industry for the new engine and spare parts businesses, while the multi-year program business cycles are dominated by the impact of the GTF™ fleet management plan and the special item relating to the geopolitical influence of the Russia-Ukraine war and its macroeconomic implications, the perpetuity is derived from the strategic long-term planning as in previous years. In this way, the Group endeavors to take a balanced view of both the low-margin phase for ramping up stakes in newer commercial engine programs and the stronger margin phase of the spare parts business in more mature programs. Consequently, the revenue assumption for the perpetuity is derived from the detailed operational planning period – the revenue in 2029 – plus a compound annual growth rate of 1.0% and an annuity. The annuity takes into account the extent to which revenue in the strategic long-term planning exceeds the revenue in the final year of the planning period (plus a growth rate of 1.0%). The operating earnings margin used for the perpetuity is based on a conservative valuation. Therefore, a margin below the average margin used for strategic long-term planning (2030 to 2038) is applied.

For the MRO segment, the detailed five-year planning horizon reflects average revenue growth in the mid single-digit percentage range and EBIT margin growth in the high single-digit percentage range, while the weighted average cost of capital before taxes (discount rate) is expected to be 12.7% (previous year: 10.8%). Using the same method as in the previous year, given the shorter business cycles of the MRO business, the perpetuity for this segment was derived from the revenue and EBIT margin for the final year of the detailed planning period (2029) plus a growth rate of 1.0% (previous year: 0.5%).

Impairment testing of goodwill did not result in the need to recognize impairment losses in either of the segments.

In addition, various sensitivity analyses were carried out. These did not indicate any imminent need to recognize impairment losses for segment activities, even in the case of less favorable assumptions than those applied during the original planning phase for key determining factors. In particular, neither the increase in the weighted cost of capital before taxes to 15.3% for the OEM segment and 14.7% for the MRO segment, nor a 20% shortfall in the planned EBIT – assuming otherwise identical conditions in each case – would imply an need to recognize an impairment loss for the segments. Further details of the influence of climate policy-related effects on MTU's business model, can be found in *section I. Accounting policies and principles – Discretionary scope, measurement uncertainties and sensitivity – Climate change*.

15. Property, plant and equipment

Through its capital expenditure on property, plant and equipment, MTU aims to expand its production capacity and modernize equipment and machinery to state-of-the-art standards.

In the reporting period, the Group's total capital expenditure on property, plant and equipment amounted to €608 million (previous year: €429 million). Additions to this item also include the recognition of right-of-use assets relating to leases. Further information is provided in *Note 36. Leases*.

The depreciation expense for property, plant and equipment is included in the presentation of the following line items: cost of sales €253 million (previous year: €217 million), research and development expenses €2 million (previous year: €2 million), selling expenses €1 million (previous year: €2 million), and general administrative expenses €2 million (previous year: €3 million).

In the reporting period, additions to land, leasehold rights and buildings, including buildings on third-party land, amounted to €49 million (previous year: €53 million) and relate mainly to new buildings and right-of-use assets for real estate leases at the Munich location.

Capital expenditure on technical equipment, plant and machinery totaling €50 million (previous year: €24 million) relates mainly to the purchase of plant and machinery for the capacity expansion in connection with the ramp-up of production of the Pratt & Whitney GTF™ engine family and the GE9X engine program.

The capital expenditure on other equipment and operational and office equipment, which amounted to €326 million (previous year: €197 million), and the additions to advance payments and construction in progress, which amounted to €183 million (previous year: €155 million), relate to the expansion of production capacities at the Munich location and the growing engine leasing business at the Amsterdam location.

The proportion of additions to property, plant and equipment in the reporting period identified as taxonomy-eligible within the meaning of the EU Taxonomy for sustainable economic activities and further disclosures on the EU Taxonomy can be found in the *section Disclosures on the EU Taxonomy in the non-financial statement in the management report*.

16. Financial assets

Financial assets accounted for using the equity method

Financial assets accounted for using the equity method in the consolidated financial statements amounted to €727 million at the reporting date (previous year: €643 million).

Associated companies

PW1100G-JM Engine Leasing LLC, East Hartford, CT, USA, leases out replacement engines of the PW1100G-JM series and is the only material investment in an associate included in MTU's consolidated financial statements.

MTU holds an 18% interest in the company, which is included in the consolidated financial statements using the equity method for the consolidated financial statements, analogously to the previous years.

The table below provides a summary of the financial data of PW1100G-JM Engine Leasing LLC, East Hartford, CT, USA for the reporting period:

Summary of financial data of PW1100G-JM Engine Leasing LLC

in € million	2024	2023
Income statement		
Revenue	457	392
Net income	208	112
Total comprehensive income	**208**	**112**
Group's share in the income	38	23
Dividend received from the company	**26**	**22**
Balance sheet as of Dec. 31		
Current assets	565	319
Non-current assets	1,166	1,225
Current liabilities	30	14
Non-current liabilities	78	70
Equity	1,622	1,461
Share of equity	292	263
Reconciliation to carrying amount	-6	-6
Carrying amount of company accounted for using the equity method	286	257

The aggregated, unaudited financial information of the associates that are not material when considered separately for the reporting period is presented in the following table:

Aggregated financial information on the non-material associates

in € million	2024	2023
Net income	13	13
Total comprehensive income	**13**	**13**
Group's share in the income	3	3
Carrying amount of companies accounted for using the equity method	45	39

Further details of shareholdings can be found in *Note 38. Related party disclosures*.

Joint ventures

The joint ventures identified as material in the reporting period are, as in the previous year, MTU Maintenance Zhuhai Co. Ltd., Zhuhai, China, and EME Aero sp. z o.o., Jasionka, Poland. MTU holds a 50% interest in each of these companies. MTU Maintenance Zhuhai Co. Ltd. specializes in the maintenance, repair and overhaul of the V2500, CFM56, LEAP and PW1100G-JM engines and serves the China and Southeast Asia regions. EME Aero sp. z o.o. focuses on providing maintenance services for the Pratt & Whitney GTF™ engine family, which powers the Airbus A320neo family and the Airbus A220 family along with other aircraft. The material joint ventures are included in this consolidated financial statements using the equity method.

The table below provides a summary of the unaudited financial data of the material joint ventures in the MTU Group for the reporting period and the previous year:

Income statement, statement of comprehensive income and balance sheet information of the material joint ventures

in € million	2024 EME Aero sp. z o.o.	2024 MTU Maintenance Zhuhai Co. Ltd.	2023 EME Aero sp. z o.o.	2023 MTU Maintenance Zhuhai Co. Ltd.
Income statement data disclosures				
Revenue	1,106	2,092	948	1,604
Depreciation/amortization and write-downs	-17	-12	-17	-12
Interest income		2		1
Interest expense	-19	-13	-24	-13
Income tax credits	6		2	
Income tax expense		-26		-24
Other income and expenses	-1,088	-1,884	-938	-1,402
Net income	**-13**	**159**	**-28**	**155**
Other comprehensive income				
Total comprehensive income	**-13**	**159**	**-28**	**155**
Group's share in the income	-7	80	-14	77
Balance sheet disclosures				
Non-current assets	230	249	194	188
Cash and cash equivalents	29	55	16	37
Other current assets	348	1,274	299	1,031
Total assets	**607**	**1,578**	**508**	**1,256**
Equity	41	674	52	579
Non-current financial liabilities		335		225
Other non-current liabilities	11		11	
Current financial liabilities	540	334	440	278
Other current liabilities	16	235	6	174
Total equity and liabilities	**607**	**1,578**	**508**	**1,256**

in Mio. €	2024 EME Aero sp. z o.o.	2024 MTU Maintenance Zhuhai Co. Ltd.	2023 EME Aero sp. z o.o·	2023 MTU Maintenance Zhuhai Co. Ltd.
Reconciliation to carrying amount				
Share of equity	20	337	26	289
Reconciliation to carrying amount	0		0	
Carrying amount of companies accounted for using the equity method	**21**	**337**	**26**	**289**
Dividend received from joint ventures		**43**		**28**

The aggregated, unaudited financial information of the joint ventures that are not material when considered separately for the reporting period are presented in the following table:

Aggregated financial information on the non-material joint ventures

in € million	2024	2023
Net income	17	17
Other comprehensive income	-0	0
Total comprehensive income	**16**	**17**
Group's share in the income	8	8
Carrying amount of companies accounted for using the equity method	39	31

Further details of shareholdings can be found in *Note 38. Related party disclosures*.

Other financial assets

The carrying amounts of other financial assets included in the consolidated financial statements are presented below:

Composition of other financial assets

	Total		Non-current		Current	
in € million	Dec. 31, 2024	Dec. 31, 2023	Dec. 31, 2024	Dec. 31, 2023	Dec. 31, 2024	Dec. 31, 2023
Financial assets measured at purchase cost	**973**	**734**	**89**	**72**	**884**	**662**
Loans to third parties[1]	26	52	26	52		
Loans to related companies[1]	7	14	7	14		
Receivables from employees	4	1	2	0	2	1
Receivables from suppliers	24	4			24	4
Aftermarket imbalance payments	789	487			789	487
Miscellaneous other financial assets	123	176	54	6	69	169
Financial assets at fair value through other comprehensive income	**12**	**17**	**12**	**17**		
Other interests in related companies	12	17	12	17		
Derivatives without hedging relationship						
Derivatives with hedging relationship	**4**	**61**	**2**	**43**	**1**	**18**
Total other financial assets	**988**	**812**	**103**	**132**	**885**	**679**

[1] Included in net financial debt.

Loans to third parties are primarily attributable to the stakes in consortia granting financing for aircraft and engines as part of commercial OEM programs, especially for the GTF engine family.

The receivables from suppliers primarily include credit notes, e.g., in connection with returned goods, amendments to invoices and trade discounts received.

The program aftermarket imbalance payments contain accrued imbalance compensation components payable to the consortium leader (OEM) for maintenance business within the GTF engine programs. These assets are amortized through the share of the net revenue from the engine maintenance contracts for the respective GTF engine programs. Expected inherent invoicing and credit risks relating to the above assets are taken into account by recognizing differentiated value allowances. The increase in the reporting period is mainly due to the implementation of the GTF™ fleet management plan.

The remaining other financial assets amounting to €123 million (previous year: €176 million) comprise claims for the pro-rata reimbursement of purchased program assets and development assets related to the stakes in the PW1500G/PW1900G programs. The basis for this was the agreement reached in 2024 to align MTU's program stake with the corresponding relative amounts of MTU's goods and services. In addition, they relate to numerous individual items that are not material when viewed separately, for example, security for leases and rented premises.

Other interests in related companies include the carrying amounts of MTU's investments in companies that are neither fully consolidated nor accounted for using the equity method (for further details of shareholdings see *Note 38. Related party disclosures*).

As in previous years, the present value of the derivatives without hedging relationships recognized on the balance sheet serve to hedge operational commodity price risks. As in previous years, the present value of the derivatives with hedging relationships recognized on the balance sheet serve to hedge currency risks and are composed as follows as at the reporting date:

Derivative financial instruments

	Total		Non-current		Current	
in € million	Dec. 31, 2024	Dec. 31, 2023	Dec. 31, 2024	Dec. 31, 2023	Dec. 31, 2024	Dec. 31, 2023
Forward foreign exchange contracts (Derivates with a hedging relationship)	4	61	2	43	1	18
Total derivative financial instruments	**4**	**61**	**2**	**43**	**1**	**18**

17. Acquired program assets, development work and other assets

Acquired program assets, development assets

Acquired program assets, development work and other assets decreased from €800 million to €722 million in the reporting period. Acquired program assets accounted for €540 million of this amount (previous year: €597 million) and acquired development for €177 million (previous year: €198 million).

In the reporting period, imbalance payments for development work in an amount of €34 million (previous year: €21 million) paid to consortium leaders of commercial engine programs were capitalized. Amortization of accrued payments for acquired development assets amounted to €11 million in the reporting period (previous year: €10 million). Moreover, impairment losses of €12 million were recognized on development imbalance payments as a result of ad-hoc impairment testing, as prescribed by IAS 36, in connection with the T408 program (previous year: €0 million).

MTU spent €19 million on the acquisition of program assets in the reporting period (previous year: €4 million). In addition, program assets increased by €18 million (previous year: €3 million) in connection with the measurement of the increase in the IAE V2500 stake. The increase in this stake is recognized in accordance with IFRIC 1 because it relates to retrospective purchase costs that depend on future economic benefits and are therefore variable costs. More information can be found in *section I. Accounting policies and principles – Acquired program assets and acquired development work*. Translation differences arising from the financial statements of foreign entities in the amount of €5 million (previous year: €24 million) should be taken into account in connection with the above-mentioned program value. Amortization of acquired program assets amounted to €39 million in the reporting period (previous year: €40 million). No impairment losses had to be recognized on program assets in 2024 or the previous year.

In 2024, an agreement was reached to adjust MTU's stake in the PW1500G/PW1900G engine program to reflect the corresponding relative amounts of MTU's goods and services. In this connection, MTU was granted a pro-rata reimbursement of acquired program assets and development assets. The resulting claims were offset against acquired program assets (€41 million) and acquired development assets (€34 million) and recognized in an income-neutral manner as part of the other financial assets.

Other assets

Other assets include claims for tax refunds amounting to €37 million (previous year: €35 million) in respect of transactional taxes, insurance premiums and rents.

18. Deferred tax assets

Deferred tax assets increased by €4 million to €333 million in the reporting period (previous year: €328 million). Further details of deferred taxes can be found in *Note 10. Income taxes* and *Note 34. Deferred taxes*.

19. Inventories

The carrying amount of inventories, taking into account valuation allowances, comprises the following components:

Inventories

in € million	Change in Valuation allowances	Dec. 31, 2024 Gross amount	Dec. 31, 2024 Valuation allowances	Dec. 31, 2024 Carrying amount	Dec. 31, 2023 Gross amount	Dec. 31, 2023 Valuation allowances	Dec. 31, 2023 Carrying amount
Raw materials and supplies	-17	1,029	-115	914	883	-98	785
Work in progress	-16	644	-46	598	582	-30	552
Finished goods	-4	297	-79	218	318	-75	243
Advance payments		23		23	49		49
Total inventories	**-37**	**1,993**	**-240**	**1,753**	**1,832**	**-203**	**1,629**

Of the total volume of inventories, an amount of €463 million (previous year: €452 million) was considered to be impaired at the reporting date. The valuation allowances relate to volume and price risks. More information can be found in the *section I. Accounting policies and principles – Discretionary scope, measurement uncertainties and sensitivity*.

20. Trade receivables

Trade receivables

in € million	Dec. 31, 2024	Dec. 31, 2023
Third parties	890	603
Related companies	775	407
Total trade receivables	**1,665**	**1,010**

As at the reporting date, the carrying amount of trade receivables includes valuation allowances in the amount of €37 million (previous year: €33 million). Information on changes in these valuation allowances in the reporting period can be found in *Note 21. Contract assets*. Further details on trade receivables from related companies can be found in *Note 38. Related party disclosures*.

21. Contract assets

The contract assets result from performance obligations that have been satisfied, where receipt of the agreed consideration depends on acceptance of the performance obligation by the customer and the amounts becoming due for payment.

Valuation allowances on trade receivables and contract assets changed as follows in the fiscal year:

Valuation allowances

in € million	2024	2023
As of Jan. 1	**41**	**39**
Translation differences	1	
Transferred		
Additions	15	9
Utilized	–1	–5
Reversed	–16	–3
As of Dec. 31	**40**	**41**

Contract assets account for €4 million (previous year: €8 million) of the reported valuation allowances. The increase in valuation allowances in the reporting period are consistent with changes in the invoicing and credit risks in the commercial engine business and are predominantly recognized on a case-by-case basis. The expenses resulting from the derecognition of trade receivables, offset against the corresponding revenue, amounted to €0 million (previous year: €5 million).

Income and expenses relating to valuation allowances for contract assets are presented in revenue as the underlying valuation allowances relate to invoicing and credit risks.

In order to minimize the non-payment risk, an active receivables management system is operated both in the OEM segment, supported in particular by the respective engine consortium leader, and in the MRO segment.

22. Income tax receivables

At the reporting date, income tax receivables amounted to €63 million (previous year: €81 million). €60 million of this amount (previous year: €78 million) comprises income tax receivables in Germany.

23. Cash and cash equivalents

The cash and cash equivalents amounting to €1,747 million (previous year: €883 million) comprise cash in hand and bank deposits. This item also includes foreign-currency holdings with an equivalent value of €248 million (previous year: €180 million). The increase in foreign currency holdings corresponds to the operation development of the commercial OEM and MRO businesses, where invoicing is normally in U.S. dollars.

As at December 31, 2024, €1,458 million (previous year: €781 million) of cash and cash equivalents was invested in short-term money market instruments.

24. Equity

Changes in Group equity are presented in the consolidated statement of changes in equity.

Subscribed capital

Compared to the previous year, the company's subscribed capital was unchanged at €53,824,489 as at December 31, 2024; it is divided into 53,824,489 no-par-value registered shares.

Authorized capital

In accordance with Article 4 (5) of the articles of association, the Executive Board is authorized until April 20, 2026, to increase the company's capital stock by up to €16.0 million, with the approval of the Supervisory Board, by issuing, either in a single step or in several steps, new registered non-par-value shares in return for cash and/or contributions in kind (Authorized Capital 2021). The Authorized Capital 2021 was adopted in the Annual General Meeting on April 21, 2021; the same resolution annulled the Authorized Capital 2019.

Conditional capital

In accordance with Article 4 (6) of the articles of association, the company's capital stock may be conditionally increased by up to €3,375,511 through the issue of up to 3,375,511 new registered non-par-value shares. The purpose of this conditional capital increase is to issue shares to owners or creditors of convertible bonds and/or bonds with warrants in accordance with the authorization granted to the company under a resolution passed by the Annual General Meeting on April 15, 2015. Shares are issued at a conversion price or warrant exercise price determined on the basis of this authorization.

Until April 14, 2020, the Executive Board was authorized to issue, with the approval of the Supervisory Board, bearer and/or registered convertible bonds and/or bonds with warrants (collectively referred to as "bonds") with a total nominal value of up to €500 million. In 2016, MTU made use of this authorization to increase the company's capital stock by issuing a convertible bond with a nominal value of €500 million.

Further, Article 4 (7) of the articles of association stated that the company's capital stock may be conditionally increased by up to €2,600,000 through the issue of up to 2,600,000 new registered non-par-value shares (Conditional Capital 2019). The purpose of this conditional capital increase was to issue shares to owners or creditors of convertible bonds and/or bonds with warrants in accordance with the authorization granted to the company under a resolution passed by the Annual General Meeting on April 11, 2019. Shares were issued at a conversion price or warrant exercise price determined on the basis of this authorization.

The Executive Board was authorized until April 10, 2024, to issue, in a single step or in several steps and with the prior approval of the Supervisory Board, bearer and/or registered convertible bonds and/or bonds with warrants (collectively referred to as "bonds"), with or without maturity date, with a total nominal value of up to €600 million, and to grant the owners of convertible bonds and/or bonds with warrants the right, obligation or option to convert them into registered non-par-value shares of the company representing a stake in the capital stock of up to €2,600,000 under the conditions established for the issue of convertible bonds or bonds with warrants. The bonds could only be issued in return for cash contributions. They could be issued in euros or – to an equivalent value – in any other legal currency, for instance that of an OECD country. They could also be issued by an affiliated company where MTU exercises control. In such cases, and subject to the prior approval of the Supervisory Board, the Executive Board was authorized to act as guarantor for the bonds and to grant the owners of the bonds the right, obligation or option to convert them into new registered non-par-value shares in MTU.

In 2019, MTU made partial use of this authorization to increase the company's capital stock by issuing a convertible bond with a nominal value of €500 million. More details are provided in Note 28. Financial liabilities.

The authorization described above for the Executive Board to issue bonds with a total nominal value of up to €600 million was canceled at the Annual General Meeting on April 21, 2021, to the extent that such authorization had not been used for the €500 million convertible bond issued in 2019. The Conditional Capital 2019 in the amount of €2,600,000 in accordance with Article 4 (7) of the articles of association was also partially withdrawn and now only comprises a partial amount of €1,600,000.

Further, in accordance with Article 4 (8) of the articles of association, the company's capital stock may be conditionally increased by up to €2,600,000 through the issue of up to 2,600,000 new registered non-par-value shares (Conditional Capital 2021). The purpose of this conditional capital increase is to issue shares to owners or creditors of convertible bonds and/or bonds with warrants in accordance with the authorization granted to the company under a resolution passed by the Annual General Meeting on April 21, 2021. Shares are issued at a conversion price or warrant exercise price determined on the basis of this authorization.

The Executive Board is authorized until April 20, 2026, to issue, in a single step or in several steps and with the prior approval of the Supervisory Board, bearer and/or registered convertible bonds and/or bonds with warrants (collectively referred to as "bonds"), with or without maturity date, with a total nominal value of up to €600 million, and to grant the owners of convertible bonds and/or bonds with warrants the right, obligation or option to convert them into registered non-par-value shares of the company representing a stake in the capital stock of up to €2,600,000 under the conditions established for the issue of convertible bonds or bonds with warrants. The bonds may be issued in return for cash contributions only. They may be issued in euros or – to an equivalent value – in any other legal currency, for instance that of an OECD country. They can also be issued by an affiliated company where MTU exercises control. In such cases, and subject to the prior approval of the Supervisory Board, the Executive Board is authorized to act as guarantor for the bonds and to grant the owners of the bonds the right, obligation or option to convert them into registered non-par-value shares in MTU.

Capital reserves

Capital reserves contain premiums from the issuance of shares and the equity component (net of proportional transaction costs) of convertible bonds that have been redeemed or are still outstanding.

No new shares were issued in fiscal year 2024 since no options were exercised to convert the convertible bond 2019. In contrast, the issue of new shares as a result of the exercise of options to convert the convertible bond 2016 had increased the capital reserves by €45 million in the previous year.

Capital reserves also include performance-related compensation components granted and owed in connection with the Restricted Stock Plan (RSP) and realized premiums for the issue of shares in the company in connection with the Restricted Stock Plan (RSP) or the Stock Matching Program (SMP) and, previously, the Matching Stock Program (MSP).

The Restricted Stock Plan, which is the performance-related compensation component with a long-term incentive effect for senior executives (in the previous year also for the Executive Board), entails a cash payment, which must be immediately re-invested in MTU shares. These shares are subject to a specific vesting period, defined according to the beneficiary's rank in the management hierarchy. The amount of target compensation granted for the purchase of shares is determined in principle on the basis of the proportionate target direct compensation, weighted by the average achievement of the performance-related compensation component granted, calculated over several years.

Under the terms of the RSP, the eligible senior managers were granted 14,332 (previous year: 10,687) shares that are blocked for several years, based on an imputed allocation price of €228.62 per share. Due to the granting and payment of the RSP in the reporting year, there were only subsequent obligations from new entrants to the group of beneficiaries or provisions for senior executives on foreign assignment in the amount of €1 million (previous year: €0 million) as at the balance sheet date.

In the previous year, the Executive Board was granted 5,911 shares from the RSP with a multi-year blocking period on the basis of the contractual target amounts and target achievement, and an imputed allocation price of €237.64 per share. Payments to the Executive Board under the RSP were not made until the year after the shares were granted.

Retained earnings

Retained earnings mainly comprise retained profits generated by the consolidated Group companies on the basis of a resolution by the responsible bodies.

Treasury shares

Purchase of treasury shares in accordance with the authorization granted by the Annual General Meeting on May 8, 2024

The Executive Board of MTU Aero Engines AG, Munich, Germany, is authorized by the resolution of the Annual General Meeting of May 8, 2024, to purchase treasury shares with an aggregate nominal value of up to 10% of the company's issued capital stock, as applicable on the date of the resolution, or, if lower, on the date of utilization, during the period to May 7, 2026, pursuant to Section 71 (1) no. 8 of the German Stock Corporation Act (AktG). At no point in time may the value of the acquired shares, together with other treasury shares in the company's possession or which are attributed to it pursuant to Section 71a et seq. of the German Stock Corporation Act (AktG), exceed 10% of the company's capital stock. The Executive Board can choose whether to make the purchase via the stock exchange or through a public offer to buy addressed to all shareholders (or – where legally permitted – a pubic call to submit a sell offer). The consideration paid for the acquisition of these shares must not exceed or fall below the stock market price by more than 10 %, not taking into account any ancillary transaction costs. The authorization to purchase treasury shares replaces the authorization of April 11, 2019, which expired on April 10, 2024.

Holdings of treasury shares

No further treasury shares were purchased in 2024 (or in the previous year). The shares purchased by MTU in preceding years still serve the purpose of granting shares in connection with the Restricted Stock Plan (RSP). In the reporting period, 14,332 shares (previous year: 10,687 shares) were transferred to senior executives under the Restricted Stock Plan (RSP).

Reconciliation of weighted average number of outstanding shares

In fiscal year 2024, the weighted average number of outstanding shares totaled 53,778,080 (previous year: 53,691,433). A total of 53,785,246 shares in MTU Aero Engines AG, Munich, were in circulation as at December 31, 2024 (previous year: 53,770,914 shares). The company held 39,243 treasury shares as at December 31, 2024 (previous year: 53,575 shares).

Accumulated other comprehensive income

Accumulated other comprehensive income decreased by €30 million to €-195 million in fiscal year 2024 (previous year: €-166 million). This was due to the decrease in the fair value of cash flow hedges used in the hedging of foreign currencies as at the reporting date. This was offset to some extent by exchange rate gains on the translation of the financial statements of foreign entities and actuarial gains on the measurement of pension provisions.

The table below shows the income and expenses recognized in other comprehensive income, including the associated deferred taxes:

Items recognized in other comprehensive income

in € million	2024 Before	2024 income taxes	2024 After	2023 Before	2023 income taxes	2023 After
Translation differences arising from the financial statements of foreign entities accounted for using the equity method	16		16	-19		-19
Translation differences arising from the financial statements of other consolidated foreign entities	32		32	9		9
Translation differences arising from the financial statements of foreign entities	**48**		**48**	**-10**		**-10**
Actuarial gains/losses on pension obligations and plan assets	10	-3	7	-50	16	-34
Financial instruments designated as cash flow hedges for companies not accounted for using the equity method	-118	38	-79	129	-38	90
Financial instruments designated as cash flow hedges for companies accounted for using the equity method				1		1
Income and expense recognized in other comprehensive income	**-60**	**35**	**-25**	**69**	**-22**	**47**

Disclosures relating to capital management

MTU strives to maintain a strong financial profile in the interests of assuring the company's continuation as a going concern and its financial flexibility, as well as ensuring confidence on the part of its shareholders and lenders. As part of its capital management, the company observes the statutory requirements on capital maintenance. Formally, there are no further statutory capital requirements. Nevertheless, MTU considers itself obligated to maintain an investment-grade rating of at least Baa3 from Moody's or BBB- from Fitch or S&P.

Based on this, the dividend policy is generally aligned with a distribution between 30% and 40% of the adjusted annual net income (see *Note 12. Additional disclosures relating to the income statement – Reconciliation of the consolidated income statement*) to shareholders provided that this is permitted by the financial situation, especially debt and changes in cash flows, and the corporate bodies approve. Against this background, MTU provided information on the expected financial impact of the GTF™ fleet management plan on September 11 and 13, 2023. Accordingly, on February 21, 2024, MTU confirmed when notifying the Supervisory Board of the proposal for the appropriation of net profit that, due to the expected charges arising from the GTF™ fleet management plan, the explicit requirements regarding the development of cash flow and debt would preclude a continuation of the intended dividend policy in the period from 2024 to 2026 (*see section on the appropriation of net profit VII. Determination of the net profit available for distribution on the basis of the annual financial statements*). The Group's capital management activities are focused on optimizing the balance between equity and net financial debt, profitable growth of the business, and free cash flow or available liquidity. A description of the financial indicators MTU is obliged to meet in the context of its liabilities to banks can be found in *Note 28. Financial assets*.

25.Pension provisions

Defined benefit plans and defined contribution plans are in place for MTU employees. For Group companies in Germany, these benefits are financed primarily by provisions recognized in the financial statements, which are covered only to a small extent by plan assets. In contrast, MTU Maintenance Canada Ltd., Delta, Canada, has a fund-based retirement benefit plan, which constitutes a funded plan within the meaning of IAS 19.

Defined contribution plans

Since January 1, 2007, no direct pension commitments have been granted to new employees in Germany other than senior executives. Instead, MTU paid contributions in the amount of €5 million in the reporting period (previous year: €4 million) to an external pension fund for employees who joined the company after that date. In addition, MTU provides direct insurance contracts funded by employee contributions.

Employer's contributions to the state pension scheme in fiscal year 2024 totaled €67 million (previous year: €57 million).

Defined benefit plans

The pension obligations of MTU are measured using the projected unit credit method in accordance with IAS 19, taking account of future salary and pension increases and performance and portfolio adjustments expected to be made to benefits and pension plans. The provision for defined benefit plans recognized in the balance sheet corresponds to the present value of the benefits payable for current and past service (the defined benefit obligation) of beneficiaries less the fair value of plan assets at the reporting date. An extensive actuarial analysis is carried out annually for each pension plan by independent actuaries.

Actuarial gains or losses may arise in connection with increases or decreases either in the present value of the defined benefit obligation or in the fair value of plan assets. Causes of actuarial gains or losses include the effect of changes in measurement parameters, changes in the assessment of risks on pension obligations, and differences between the actual return on plan assets and the proportional share of interest on the net liability.

In order to calculate the funding status and the pension obligations recognized, the present value of unfunded and funded obligations is offset against the fair value of the plan assets. In Germany, there are no legal or regulatory minimum funding requirements.

The present value and funding status of the defined benefit obligation is as follows:

Present value of defined benefit obligation (DBO)

in € million	Dec. 31, 2024	Dec. 31, 2023
Present value of unfunded pension obligations	724	743
Fair value of plan assets	–0	–0
Total Germany	**724**	**743**
Present value of funded pension obligations	23	22
Fair value of plan assets	–23	–23
Total other countries (negative value = plan asset surplus)	**0**	**–2**
Recognized pension obligations (net)	**724**	**741**

The following parameters were applied to measure the pension obligations as at December 31 of the respective year and to measure the pension plan expense in the respective reporting period:

Actuarial assumptions: Germany

in %	Dec. 31, 2024	Dec. 31, 2023
Interest rate for accounting purposes	3.31	3.19
Salary trend	2.70	2.70
Pension trend	2.00	2.20

Actuarial assumptions: other countries

in %	Dec. 31, 2024	Dec. 31, 2023
Interest rate for accounting purposes	4.50	5.75
Salary trend	3.00	3.00
Pension trend	2.50	2.50

The market yields on high-quality, fixed-interest corporate bonds with similar maturities in Germany increased compared with the previous year. In view of the duration of the obligations, which currently stands at approximately 10 years, pension obligations in Germany were discounted as at December 31, 2024, applying a discount rate of 3.31%. The mortality tables issued by Heubeck Richttafeln GmbH 2018G were used as the biometric basis to measure the pension plan obligations in Germany. At the foreign Group companies, the obligations were calculated using a discount rate of 4.50% and current country-specific actuarial assumptions. The expected salary trend refers to the expected rate of increase in salaries and other compensation, which is estimated based on inflation, the length of service of employees within the Group, as well as other factors. Employee turnover, mortality rates and disability risk were estimated on the basis of statistical data. Further information on this matter can be found in *section I. Accounting policies and principles – Pension obligations* and *section I. Accounting policies and principles – Discretionary scope, measurement uncertainties and sensitivity*.

The present value of pension obligations changed as follows in the fiscal year:

Present value of pension obligations

in € million	2024	2023
Present value of defined benefit obligation as of Jan. 1	**765**	**729**
Current service cost	8	10
Past service cost	0	0
Pension plan subscriber contributions	6	7
Interest expense	24	26
Translation differences	–0	–0
Actuarial gains (-)/losses (+)		
Financial assumptions	–9	35
Assumptions based on experience	0	16
Plan settlements/transfers	–23	–36
Pension benefit and capital payments	–23	–23
Present value of defined benefit obligation as of Dec. 31	**747**	**765**

Actuarial losses in connection with financial assumptions correspond in particular to changes in the discount rate as well as pension trends. Those in connection with assumptions based on experience correspond in particular to the empirical behavior of beneficiaries of the company pension scheme when choosing the mode of payment for their company pension entitlements.

The obligations resulting from plan settlements/transfers are attributable to the conversion of pension benefits into fixed-sum payments and the Group's employee turnover rate.

Plan assets changed as follows in the fiscal year:

Fair value of plan assets

in € million	2024	2023
Fair value as of Jan. 1	**23**	**23**
Employer contributions	0	0
Interest income on plan assets	1	1
Translation differences/transfers	–0	–0
Actuarial gains/losses (-)	1	1
Pension benefit payments	–2	–2
Fair value as of Dec. 31	**23**	**23**

Breakdown of plan assets

in %	2024	2023
Insurance policy (buy-in annuity)	64.8	66.5
Fixed-interest securities	28.3	26.8
Shares	7.0	6.7
Total plan assets	**100.0**	**100.0**

The structure of the plan assets is reviewed annually to optimize the risk and return of the assets invested and adjusted if necessary. The statement of principles of the foreign plan assets defines restrictions to be observed when choosing investments; the investment policy was unchanged from previous years.

The expense from defined benefit pension plans and similar obligations recognized in the income statement for the reporting period comprises the following items:

Expense from defined benefit pension plans and similar obligations

in € million	2024	2023
Current service cost	8	10
Past service cost	0	0
Service cost	**8**	**10**
Interest cost on pension provisions	24	26
Interest income on plan assets	–1	–1
Net interest cost	**23**	**25**
Interest cost on liabilities from pension capital	**4**	**3**
Total expense	**35**	**38**

Current and past service costs are recognized in personnel expenses. The other components of the expense from defined benefit pension plans and similar benefit obligations are included in other financial income/expense. The measurement effects related to actuarial gains and losses are recognized in total comprehensive income as part of other comprehensive income.

Expected future pension benefit payments

For the coming years, the Group expects to settle its pension provisions and liabilities through the following series of payments:

Expected yearly amount of pension benefit payments

in € million	2025	2026	2027	2028
Expected yearly amount of pension benefit payments	33	34	39	43

The disclosures on the expected payment of pension benefits take into account the method of payment agreed as at the reporting date or, alternatively, the standard contractual terms; in the case of eligible members of the Executive Board, this is normally as pension capital and for other employees payment in installments.

The main actuarial assumptions used to calculate the defined benefit obligation (DBO), apart from the mode of payment, are the discount rate, salary and pension trends, and assumed life expectancy. The following sensitivity analysis shows how the DBO would have been influenced by potential changes in the underlying assumptions:

Sensitivity analysis of the defined benefit obligation

in € million	2024	2023
Discount rate 50 basis points higher	-35	-36
Discount rate 25 basis points lower	19	19
Salary and pension trend 50 basis points higher	6	7
Assumed life expectancy 1 year longer	9	9

There are interdependencies between certain actuarial assumptions, especially between changes in the discount rate and the expected pension and salary trends. The sensitivity analysis does not take these interdependencies into account.

26. Income tax liabilities

The income tax liabilities comprise German corporation and municipal trade tax plus income taxes for Group companies outside Germany.

Income tax liabilities

in € million	2024	2023
As of Jan. 1	**37**	**70**
Utilized	-37	-70
Allocated	35	37
As of Dec. 31	**35**	**37**

Income tax liabilities are due within one year.

27. Other provisions

Other provisions take into account obligations as defined by IAS 37, which are described below. There are also obligations that are expected to materialize through (reverse) payments to customers as defined by IFRS 15. These are also accounted for as part of the refund liabilities in view of the estimation requirements with regard to maturity and amount - further explanations and details can be found in *Note 31. Refund liabilities*.

Other provisions

	Total		Non-current		Current	
in € million	**Dec. 31, 2024**	Dec. 31, 2023	**Dec. 31, 2024**	Dec. 31, 2023	**Dec. 31, 2024**	Dec. 31, 2023
Warranty obligations and risks from pending losses on onerous contracts	35	19			35	19
Personnel obligations	43	33	30	21	13	12
Outstanding invoices	80	77	3	7	77	70
Other liabilities	32	28		0	32	28
Total other provisions	**192**	**157**	**33**	**28**	**158**	**129**

MTU is guided by the legally or contractually enforceable maturity in each case when disclosing the terms of its other provisions.

Other provisions developed as follows:

Other provisions 2024

in € million	As of Jan. 1, 2024	Transferred	Utilized	Reversed	Allocated	Discount reversed	**As of Dec. 31, 2024**
Warranty obligations and risks from pending losses on onerous contracts	19		-12	-2	30	-0	35
Personnel obligations	33		-12		22	0	43
Outstanding invoices	77	-0	-8	-17	29	0	80
Other liabilities	28	0	-5	-0	9	0	32
Total Other provisions	**157**	**0**	**-37**	**-18**	**90**	**0**	**192**

Under the new compensation system for the Executive Board, the Performance Share Plan (PSP/LTI) has been in place since 2024 as a long-term incentive for each fiscal year with a four-year assessment period. The number of virtual shares conditionally allocated for the reporting year (performance shares) is calculated from their fair value and the respective contractual target amount for the PSP/LTI at the grant date. The Performance Share Plan (PSP/LTI) is paid out based on the extent to which the target values set for it by the Supervisory Board for the financial performance criteria and the non-financial performance criteria (ESG targets) are achieved – the target achievement initially modifies the number of virtual shares conditionally allocated for the fiscal year, with a maximum of 200% of the original number of virtual shares granted being achievable. After the end of the assessment period, the respective payout amount of the PSP/LTI granted for the reporting year is calculated by multiplying the number of virtual shares finally allocated by the sum of the average MTU share price in the 60 trading days prior to the end of the assessment period and the dividend payments per share made during the assessment period. After deduction of the relevant taxes, the resulting PSP/LTI payout amount is paid out to the individuals in question as a cash payment in the following year, taking into account the cap of 250% of the respective contractual target amount for the PSP/LTI at the grant date (PSP/LTI cap).

For the reporting year, 20,708 performance shares were conditionally allocated to the Executive Board on the basis of a fair value as at January 1, 2024 of €166.34 per performance share. Taking into account the status of target achievement and the share price performance, the fair value of the performance shares originally granted amounted to €327.20 per performance share, which corresponds to a provision of €7 million (previous year: €3 million from RSP recognized in equity) as at the reporting date.

The following cash outflows are expected from the carrying amounts of non-current other provisions:

Expected cash outflow from non-current other provisions

in € million	Carrying amount as of Dec. 31, 2024	Expected cash outflow 2026
Personnel obligations	30	6
Obligations relating to restructuring measures		
Outstanding invoices	3	
Total expected cash outflow from non-current other provisions	**33**	**6**

Expected cash outflow from non-current other provisions

in € million	Carrying amount as of Dec. 31, 2023	Expected cash outflow 2025
Personnel obligations	21	5
Obligations relating to restructuring measures		
Outstanding invoices	7	7
Total expected cash outflow from non-current other provisions	**28**	**12**

MTU expects that the above obligations will become due for payment within the next five years.

The cash outflows relating to current other provisions are expected to be realized in the calendar year following the reporting period.

Warranty obligations and risks from pending losses on onerous contracts

The main component of this item of provisions is an amount of €24 million (previous year: €12 million) for liabilities associated with warranty obligations in connection with the provision of goods and services.

MTU has identified a small amount of onerous contracts in its commercial maintenance business (MRO segment) where the unavoidable costs of fulfilling contractual obligations are higher than the expected inflow of economic benefits from these contracts. A provision of €12 million (previous year: €6 million) was recognized to cover the difference.

Personnel obligations

This item includes provisions for long-service awards amounting to €8 million (previous year: €7 million) and provisions for pre-retirement part-time working arrangements based on the collective agreement on phased retirement and related works agreements. On the basis of these agreements, obligations amounting to €17 million (previous year: €16 million) were recognized at the end of the reporting period. The obligations take account of relevant plan assets amounting to €12 million (previous year: €11 million).

The item also includes provisions for profit-sharing bonuses and performance-related compensation, which amounted to €16 million (previous year: €7 million). They relate to bonus and profit-sharing payments granted outside of Germany to both employees covered by collective wage agreements and exempt employees. The corresponding claims of the domestic workforce are recognized as part of personnel-related financial liabilities.

Outstanding invoices

Outstanding invoices include, in particular, accruals for cost of sales components in the form of outstanding invoices arising in particular from contracts with suppliers and service providers.

In the case of leases with third parties where MTU is obligated to meet specific maintenance conditions before returning the leased asset (e.g. engine), the settlement obligations as at the reporting date are recognized as a liability. This is measured at the nominal value of the expected maintenance costs required to satisfy the return conditions set out in the lease. These provisions are at times of a long-term nature.

Other liabilities

Other liabilities include liabilities arising from legal and litigation risks to the extent that the technically and contractually enforceable maturity is derived from the expiry of 12 months after the end of the reporting year, as well as the recognition of additional liabilities that are individually immaterial.

28. Financial liabilities

Financial liabilities

in € million	Total		Non-current		Current	
	Dec. 31, 2024	Dec. 31, 2023	**Dec. 31, 2024**	Dec. 31, 2023	**Dec. 31, 2024**	Dec. 31, 2023
Bonds and notes	1,358	607	841	597	517	9
Convertible bonds	492	489	492	489	0	0
Promissory note	308		300		9	
Financial liabilities to banks	7	7	4	7	3	0
Financial liabilities to related companies	2	0			2	0
Lease liabilities	261	170	184	127	77	43
Program liabilities with financing character	405	294	291	176	114	117
thereof: arising from acquisition of stakes in engine programs	55	73	23	36	32	37
thereof: from imbalance payments due to program participations	350	221	268	140	82	81
Total gross financial debt	**2,833**	**1,566**	**2,112**	**1,396**	**722**	**170**
Derivatives without hedging relationship	4	7	0	1	3	6
Derivatives with hedging relationship	126	41	54	4	72	37
Personnel-related financial liabilities	229	207	97	94	132	113
Miscellaneous other financial liabilities	125	70	2		122	70
Total other financial liabilities	**483**	**324**	**153**	**99**	**329**	**225**
Total financial liabilities	**3,316**	**1,890**	**2,265**	**1,495**	**1,051**	**395**

Gross financial debt

Changes in gross financial debt are shown in the following tables:

Changes in gross financial debt

in € million	As of Jan. 1, 2024	Deposits and withdrawals	Addition	Interest	Transfer/other	Currency translation differences	Change in consolidated group	As of Dec. 31, 2024
			Non-cash items					
Bonds and notes	607	723		29				1,358
Convertible bond 2019	489	–0		4				492
Promissory note		299		9				308
Financial liabilities to banks	7	0						7
Financial liabilities to related companies	0	1		0				2
Lease liabilities	170	–69	146	8	–4 [1]	4	6	261
Program liabilities with financing character	294	–123	179	10	18 [2]	27		405
thereof: arising from acquisition of stakes in engine programs	73	–41	–4	2	18 [2]	7		55
thereof: from imbalance payments due to program participations	221	–82	183	8		20		350
Total gross financial debt	**1,566**	**831**	**325**	**60**	**14**	**31**	**6**	**2,833**

[1] Premature termination of leasing contracts.
[3] IFRIC 1 adjustment.

Changes in gross financial debt

in € million	As of Jan. 1, 2023	Deposits and withdrawals	Non-cash items: Addition	Interest	Transfer/other	Currency translation differences	Change in consolidated group	As of Dec. 31, 2023
Bonds and notes	605	-19		20				607
Convertible bond 2016	46	-0		0	-46 [1]			
Convertible bond 2019	485	-0		4				489
Financial liabilities to banks		7						7
Lease liabilities	166	-81	92	4	-15 [2]	2		170
Program liabilities with financing character	333	-44	-17	14	3 [3]	4		294
thereof: arising from acquisition of stakes in engine programs	114	-44	-18	3	3 [3]	15		73
thereof: from imbalance payments due to program participations	219		1	11		-10		221
Total gross financial debt	**1,635**	**-137**	**76**	**42**	**-58**	**7**		**1,566**

[1] Conversion.
[2] Premature termination of leasing contracts.
[3] IFRIC 1 adjustment.

Bonds and notes

Registered bond

MTU Aero Engines AG issued a registered bond on June 12, 2013, for a total nominal amount of €100 million. The registered bond is repayable on June 12, 2028, and is subject to interest of 3.55% p.a. Interest is payable in arrears on June 12 of each year, for the first time on June 12, 2014. The registered bond, net of transaction costs and including a discount of €3 million, is measured at amortized cost.

Corporate bond

On July 1, 2020, MTU Aero Engines AG issued an unsecured corporate bond with a nominal value of €500 million. The bond has a maturity of five years until July 1, 2025, and is available in units of €1,000. The coupon is 3.0% p.a., payable annually in arrears. At the emission date, the bond was rated by Moody's (Baa3) and Fitch (BBB) and is listed on the regulated market on the Luxembourg Stock Exchange.

On September 18, 2024, MTU Aero Engines AG issued an unsecured corporate bond with a nominal value of €750 million. The bond has a maturity of seven years until September 18, 2031, and is available in units of €1,000. The coupon is 3.875% p.a., payable annually in arrears. At the emission date, the bond was rated by Moody's (Baa3) and Fitch (BBB) and is listed on the regulated market on the Luxembourg Stock Exchange.

Convertible bonds

In 2016, MTU Aero Engines AG issued an unsecured convertible bond for a total nominal amount of €500 million. This bond was convertible into new and/or existing registered non-par-value shares in MTU. The initial conversion price was set at €124.7701, which represented a premium of 50% above the reference rate at the bond issue date. The bond was divided into units of €100,000 and had a nominal interest rate of 0.125% p.a. It matured on May 17, 2023.

Taking into account the partial redemption of bond units in 2019 at a nominal value totaling €275 million and their cancellation as well as the conversion notices received since then from creditors of this convertible bond, the nominal amount outstanding and repaid on the due date was €100,000.

In connection with the aforementioned partial redemption of the convertible bond issued in 2016, MTU Aero Engines AG issued an unsecured convertible bond in 2019 for a total nominal amount of €500 million at an issue price of 103%. This bond is convertible into registered non-par-value shares in MTU.

Under the terms of issue of the convertible bond, MTU has the right to recall the issued bond units at their nominal value (plus accrued unpaid interest) at any time on or after April 8, 2025, subject to a period of notice of minimum 30 days and maximum 60 days, either (i) if the quoted price of the common share rises to or above 130% of the applicable conversion price over a defined period, or (ii) if no more than 20% of the nominal value of the convertible bond issue is outstanding. In the event of such cancellation by MTU, and within the above-mentioned notice period of minimum 30 and maximum 60 days, the bondholders have the right to request that MTU convert their bonds into shares, rather than repurchase them.

For information on the effect of transactions with the convertible bonds on the company's subscribed capital and capital reserves, see *Note 24. Equity in the notes to the consolidated financial statements*.

Promissory notes

MTU Aero Engines AG placed two promissory notes in 2024. One promissory note, which has a nominal value of €161 million and matures on April 23, 2027, has a fixed interest rate of 4.194% p.a. The second promissory note, which has a nominal value of €139 million and matures on April 23, 2029, has a fixed interest rate of 4.121% p.a. The full nominal amount of both promissory notes less the placement fees was paid on April 23, 2024. The interest on both notes is due annually in arrears on April 23. Each of the notes will be redeemed at nominal value when they mature. They are accounted for at amortized cost, including the placement fees, using the effective interest method.

Financial liabilities to banks

KfW development loans

In 2023, MTU applied to KfW for development loans for the construction of an installation for sourcing deep geothermal energy. The applications were submitted via one of our banks. Three loan agreements for a total of €17 million were signed. The loans will be drawn at different project stages. As at December 31, 2024, an amount of €7 million had been drawn. The loans are subject to interest at customary market rates. Unused amounts are subject to a loan commitment fee. The company can obtain repayment grants from KfW if the project is completed in accordance with the conditions for such grants. These loan repayment grants end on September 30, 2027, and September 30, 2029.

Revolving credit facility

In 2022, a €500 million revolving credit facility was concluded with nine banks. This had an original term of five years, ending on June 29, 2027, and has now been extended to June 29, 2029 on the basis of the available options. The credit facility had not been drawn down as at the reporting date (December 31, 2023: €0 million).

The available amount secures the mid-term financial flexibility of the MTU Group. Any credit utilized is subject to interest at the customary market reference rates plus an additional margin. The unused amount of the revolving credit facility is subject to a loan commitment fee.

The revolving credit facility is linked to a continued investment-grade credit rating. If, and only if, the rating drops below this level, the Group is required to meet specific financial covenants. In the reporting year, MTU had an investment-grade credit rating.

Lease liabilities

Lease liabilities relate to liabilities under leases, particularly from the areas of real estate and engine leasing, recognized using the effective interest rate method. For information on their accounting treatment and an overview of the corresponding capitalized right-of-use assets, please refer to *Note 36. Leases*.

Program liabilities considered to be financing transactions

Financial liabilities arising from acquisition of stakes in engine programs
This item includes the deferred payment components arising from the increase in the stake in IAE V2500 and the acquisition of stakes in engine programs. In view of the structure of the underlying agreements, these liabilities are considered to be financing transactions. For information on the corresponding program assets, please refer to *Note 17. Acquired program assets, development work and other assets*.

The purchase price agreement signed by MTU in the fiscal year 2012 in order to increase its stake in the IAE V2500 engine program by 5 percentage points to 16% made it necessary, among other things, to recognize a purchase price liability contingent upon the number of flight hours performed over the next 15 years by the fleet of V2500 engines in service at the time of the stake increase.

The liability matures in 2027 and, after pro-rata repayment in the reporting year, reflects a nominal volume of U.S.$ 56 million (previous year: U.S.$ 80 million) as at the reporting date. Translated at the closing rate, that was €54 million (previous year: €72 million). The carrying amount of the purchase price liability was €52 million as at December 31, 2024 (previous year: €69 million).

The other financial liabilities arising from the acquisition of stakes in programs mainly comprise financial liabilities from program lifetime-related payments in the form of imbalance payments to the consortium leader independent of engine development work for the acquisition of shares in commercial engine programs.

Financial liabilities as part of program participations
In 2022, an agreement was concluded with the OEM for stakes in commercial engine programs to settle production-related imbalance payments accumulated up to the end of 2021. The above-mentioned imbalance payment obligation was to be accounted for as a refund liability before the agreement in question, taking into account the estimation requirement with regard to the amount and maturity. The agreement now includes a fixed redemption amount with a nominal value of U.S.$265 million and a payment plan over six years with fixed installments. In accordance with the agreement, a redemption payment of U.S.$89 million was made in the reporting year.

In the reporting year, additional agreements were concluded with the OEM for commercial engine program stakes to reimburse production-related imbalance payment obligations. The liabilities in question prior to the agreement were to be recognized as part of the refund liabilities, taking into account the inherent estimation requirements with regard to amount and maturity. The agreement in the reporting year now provides for a payment plan over five years with fixed installments, falling due from June 15, 2029, in return for a fixed redemption amount with a nominal value of U.S.$200 million.

Taking into account the financing of further production-related imbalance payments, which were also measured on the basis of the risk- and maturity-adjusted interest rate at the conclusion of the contract, the total liability in question amounted to €350 million as at the reporting date (previous year: €221 million).

Other financial liabilities

Derivatives
The derivatives of €129 million with and without hedging relationships recognized as financial liabilities as at the reporting date (December 31, 2023: €47 million) are used to offset currency and commodity price risks. The increase in liabilities is mainly attributable to a decrease in the fair value of forward foreign exchange contracts due to changes in the U.S. dollar exchange rate as at the reporting date relative to the agreed hedging rates.

Personnel-related financial liabilities
The personnel-related financial liabilities of €229 million (previous year: €207 million) result principally from pension capital claims of €115 million (previous year: €111 million) arising from direct pension commitments under company pension schemes and obligations arising from performance-related and other special compensation components totaling €93 million (previous year: €76 million).

Senior executives and Executive Board members receive target direct compensation comprising non-performance-related components (fixed compensation and fringe benefits) and performance-related components. The performance-related components are divided into the STI, as a performance-related component with no long-term incentive effect, and the Restricted Stock Plan (RSP) for senior executives, as well as the Performance Share Plan for the Executive Board, as a performance-related component with long-term incentive effect.

The STI for senior executives is based on the extent to which the Group's financial targets are met in the form of adjusted EBIT and free cash flow (adjusted). The extent to which the respective performance-related target components are met is measured on a scale of 0% to 200%. How these incentives are paid is controlled by the achievement of non-financial Group targets – ESG targets – which are expressed by a discretionary factor of between 0.8 and 1.2 applied to the performance-related bonus payment.

The performance-related compensation awarded for the first time in the reporting year under the new compensation system for members of the Executive Board takes into account not only the achievement of the financial performance criteria – EBIT (adjusted) and free cash flow (adjusted) – but also the non-financial performance criteria – the environmental, social and governance (ESG) targets. The extent to which the financial and non-financial performance criteria are met is measured on a scale of 0% to 200% for the respective performance-related target component granted. In addition, entitlement is subject to the achievement of the qualitative criteria for the strategic multiplier that have been defined for the fiscal year, expressed as a discretionary factor (strategic multiplier) of between 0.8 and 1.2 to be applied to the performance-related bonus payment. In the previous year, the compensation system applicable to senior executives in the reporting year was still applied to the Executive Board.

The Restricted Stock Plan, which is the performance-related compensation component with a long-term incentive effect for senior executives, entails a cash payment, which must be immediately re-invested in MTU shares. These shares are subject to a specific vesting period, defined according to the beneficiary's rank in the management hierarchy. The amount of target compensation granted for the purchase of shares is determined in principle on the basis of the proportionate target direct compensation, weighted by the average achievement of the adjusted EBIT target for the company calculated over a multi-year period.

The Performance Share Plan, which is the performance-related compensation component with a long-term incentive effect for the Executive Board, takes account of MTU's share price performance, fulfillment of financial performance criteria – relative total shareholder return (rTSR) and earnings per share (adjusted) – as well as non-financial performance criteria – referred to as ESG (environmental, social and governance) targets. Payouts are made after the end of the 4-year performance period.

Detailed explanatory notes on the compensation system for members of the Executive Board are provided in the *Management compensation report*.

In addition, personnel-related financial liabilities include obligations of €14 million (previous year: €12 million) relating to the employee stock option program (MAP), which the Executive Board of MTU Aero Engines AG, Munich, offered again in fiscal year 2024. Through the employee stock option program (MAP), MTU offers all eligible employees within and outside of the collective wage agreement and senior executives the opportunity to invest in MTU shares. At the end of a two-year vesting period, employees within and outside of the collective wage agreement receive a taxable "matching" payment corresponding to 50% of the amount invested by the employee in MTU shares at the beginning of the program. Senior executives receive a taxable "matching" payment at the end of the two-year vesting period corresponding to one-third of the amount individually invested.

The total expense for the "matching" payment as part of the current tranches of the employee stock option program (MAP) in fiscal year 2024 amounted to €13 million (previous year: €11 million).

Miscellaneous other financial liabilities

This item is used to present numerous liabilities that are immaterial when viewed separately such as customer credit balances.

Net financial debt

MTU defines net financial debt as the balance of gross financial debt, the liquidity reserve and other interest-bearing financial assets.

Net financial debt

in € million	Dec. 31, 2024	Dec. 31, 2023	Change against previous year in € million	in %
Bonds and notes	1,358	607	752	>100
Convertible bonds	492	489	4	0.7
Promissory note	308	0	308	0.0
Other financial liabilities to banks	7	7	0	1.8
Financial liabilities to related companies	2	0	2	>100
Lease liabilities	261	170	91	53.8
Program liabilities with financing character	405	294	111	37.9
thereof: arising from acquisition of stakes in engine programs	55	73	-18	-24.5
thereof: due to program participations	350	221	129	58.4
Gross financial debt	**2,833**	**1,566**	**1,268**	**80.9**
less:				
Cash and cash equivalents	1,747	883	863	97.7
Loans to third parties	26	52	-26	-50.0
Financial assets	**1,773**	**935**	**837**	**89.5**
Net financial debt	**1,061**	**631**	**430**	**68.2**

29. Trade payables

Trade payables

in € million	Dec. 31, 2024	Dec. 31, 2023
Accounts payable to:		
Third parties	372	256
Related companies	132	69
Total trade payables	**504**	**325**

Trade payables include open purchase invoices and accruals for purchased goods and services. The total amount of trade payables is due in less than one year.

30. Contract liabilities

Contract liabilities include, in particular, advance payments from customers for the delivery of engine modules and parts, as well as for development and maintenance services. In addition to the specific progress with performance of the underlying customer contracts, changes in the reporting period were related to revenue. A further factor affecting contract liabilities was the change in the U.S. dollar exchange rate from U.S.$1.11 per euro in the previous year to U.S.$1.04 per euro at year-end 2024.

31. Refund liabilities

Refund liabilities

	Total		Non-current		Current	
in € million	Dec. 31, 2024	Dec. 31, 2023	Dec. 31, 2024	Dec. 31, 2023	Dec. 31, 2024	Dec. 31, 2023
Warranty and liability risks	950	1,097			950	1,097
Invoice corrections / subsequent costs	2,355	2,145			2,355	2,145
Total refund liabilities	**3,305**	**3,242**			**3,305**	**3,242**

Refund liabilities from warranty and liability risks are related in particular to obligations to make compensation payments due to participation in consortia for commercial engine programs (OEM).

Refund liabilities often arise from the multi-step invoicing system for commercial engine programs (OEM). Sales typically occur under commercial engine programs in connection with:

/ delivery of new engines to aircraft manufacturers,
/ delivery of spare parts to MRO service providers, and
/ provision of repair and maintenance services to airlines and leasing companies

with reference to the catalog list price. Consortium leaders (OEMs) frequently make supplementary agreements with program customers that grant effective discounts as the program's supplies and services are utilized.

New parts business: series engines are sold at the catalog list price to the aircraft manufacturer, which sells the entire aircraft – aircraft including engine – to an airline for a total price. In turn, engine programs frequently grant airlines a fleet introductory allowance (i.e., a credit) for selecting their engine for their aircraft. As a consortium partner, MTU participates in this invoicing sequence initially through its share in the sale to the aircraft manufacturer and subsequently through the credit to the airline. Revenue from these transactions is recognized in profit or loss by accruing a refund liability.

Spare parts business: spare parts are sold at the catalog list price to the MRO service provider, which combines the spare parts with repair and assembly services in the course of the engine maintenance and repair services and markets this bundled service (shop visit) to the engine owner or operator (e.g., airline, leasing company). In turn, the engine program generally grants the engine owner or operator that procures the maintenance and repair services a credit ("warranty" or "discretionary" reduction) based on the pre-existing damage or the remaining lifecycle of the engine parts. As a consortium partner, MTU participates in this invoicing sequence initially through its share in the sale of spare parts to the MRO service provider and subsequently through the credit to the aircraft owner or operator. Revenue from these transactions is recognized in profit or loss by accruing a refund liability.

To this extent, the changes in the balances of the refund liabilities correspond to the growth of stakes in commercial engine programs and their revenue structure in the reporting year – i.e. to the share of new engine and spare parts business and their respective profitability. Invoicing in connection with commercial engine programs is regularly carried out in U.S. dollars. Consequently, changes in the exchange rate at the reporting date are a significant value driver of the measurement of liability balances due to their monetary character.

The refund liabilities for warranty and liability risks are largely influenced by the liabilities associated with the GTF™ fleet management plan in the reporting year and the previous year. The decline compared to the previous year corresponds in particular to the payments to be made in the reporting year in connection with the GTF™ fleet management plan. Further details of the special item "GTF™ fleet management plan" can be found in *section I. Accounting policies and principles/PW1100G-JM Geared Turbofan fleet management plan (powder metal issue)*.

In addition to general inflation effects and the development of the U.S. dollar exchange rate, the increase in refund liabilities for invoice corrections/subsequent costs in the reporting period corresponds to the growth in the operational business in 2024.

As outlined under *Accounting policies and principles*, accounting for these refund liabilities requires estimates by the management, which have to take account, in particular, of information and estimates made by the OEMs of the various engine programs in which the Group has a stake. There are estimation uncertainties arising, in particular, from the effects of the GTF™ Geared Turbofan fleet management plan, and geopolitical occurrences, particularly those in connection with Russia's war of aggression in Ukraine, and these need to be considered when making estimates. Given the complexity of these parameters, equally reliable and meaningful sensitivity data cannot be shown correctly either for individual engine programs or at company level. For more information, see *section I. Accounting policies and principles – Refund liabilities* and *section I. Accounting policies and principles – Discretionary scope, measurement uncertainties and sensitivity*.

32. Other liabilities

Other liabilities

in € million	Total Dec. 31, 2024	Total Dec. 31, 2023	Non-current Dec. 31, 2024	Non-current Dec. 31, 2023	Current Dec. 31, 2024	Current Dec. 31, 2023
Personnel-related liabilities						
Social security	2	2			2	2
Other personnel-related liabilities	48	43			48	43
Other tax liabilities	56	65			56	65
Other liabilities	16	29	4	19	12	10
Total other liabilities	**123**	**139**	**4**	**19**	**119**	**120**

Personnel-related liabilities
Other personnel-related liabilities relate, in particular, to vacation entitlements and flex-time credits.

Other tax liabilities
The tax liabilities relate to wage and church taxes to be remitted as well as solidarity surcharges and transaction taxes.

Other liabilities
The other liabilities relate to accrued expenses for a large number of items that are no material when viewed separately.

33. Additional disclosures relating to financial instruments

Carrying amounts, measurement/recognition methods and fair value by measurement category
In the following overview, the carrying amounts of financial instruments are aggregated by measurement category. The information presented also includes separate amounts for each measurement category.

The carrying amounts of the measurement categories are compared with the fair values at the end.

The financial instruments shown in the table whose fair value cannot be assigned to a measurement category within the meaning of IFRS 9 relate to obligations to employees and corresponding plan assets in accordance with IAS 19.

Disclosures relating to financial instruments: Carrying amounts, measurement/recognition methods and fair values as of Dec. 31, 2024

in € million	Carrying amount as of Dec. 31, 2024	Measurement category acc. to IFRS 9			Amount carried in balance sheet IFRS 16	Fair value not allocated to any measurement category	Total	Fair value as of Dec. 31, 2024
		Measured at amortized cost	Fair value through other comprehensive income	Fair value through profit or loss				
ASSETS								
Trade receivables	1,665	1,665					1,665	1,665
Cash and cash equivalents	1,747	1,121		625			1,747	1,747
Other financial assets								
Other interests in related companies	12	12					12	12
Loans and receivables	973	968				5	973	973
Derivative financial assets								
Derivatives with hedging relationship	4					4	4	4
EQUITY AND LIABILITIES								
Refund liabilities	3,305	3,305					3,305	3,305
Trade payables	504	504					504	504
Financial liabilities								
Bonds and notes	1,358	1,358					1,358	1,376
Convertible bond 2019	492	492					492	517
Promissory note	308	308					308	317
Financial liabilities to banks	7	7					7	7
Financial liabilities to related companies	2	2					2	2
Lease liabilities	261				261		261	
Program liabilities with financing character								
thereof: arising from acquisition of stakes in engine programs	55	55					55	54
thereof: arising from imbalance payments due to program participations	350	350					350	364
Derivative financial liabilities								
Derivatives without hedging relationship	4			4			4	4
Derivatives with hedging relationship	126					126	126	126
Personnel-related financial liabilities	229					229	229	229
Miscellaneous other financial liabilities	125	125					125	125

Disclosures relating to financial instruments: Carrying amounts, measurement/recognition methods and fair values as of Dec. 31, 2023

in € million	Carrying amount as of Dec. 31, 2023	Measurement category acc. to IFRS 9: Measured at amortized cost	Measurement category acc. to IFRS 9: Fair value through other comprehensive income	Measurement category acc. to IFRS 9: Fair value through profit or loss	Amount carried in balance sheet IFRS 16	Fair value not allocated to any measurement category	Total	Fair value as of Dec. 31, 2023
ASSETS								
Trade receivables	1,010	1,010					1,010	1,010
Cash and cash equivalents	883	102		781			883	883
Other financial assets								
Other interests in related companies	17	17					17	17
Loans and receivables	734	729				5	734	734
Derivative financial assets								
Derivatives without hedging relationship								
Derivatives with hedging relationship	61					61	61	61
EQUITY AND LIABILITIES								
Refund liabilities	3,242	3,242					3,242	3,242
Trade payables	325	325					325	325
Financial liabilities								
Bonds and notes	607	607					607	597
Convertible bonds (2016 and 2019)	489	489					489	440
Financial liabilities to banks	7	7					7	7
Lease liabilities	170				170		170	
Program liabilities with financing character								
thereof: arising from acquisition of stakes in engine programs	73	73					73	71
thereof: arising from imbalance payments due to program participations	221	221					221	221
Derivative financial liabilities								
Derivatives without hedging relationship	7			7			7	7
Derivatives with hedging relationship	41					41	41	41
Personnel-related financial liabilities	207					207	207	207
Miscellaneous other financial liabilities	70	70					70	70

With regard to financial assets and liabilities measured at amortized cost, the cash and cash equivalents, trade receivables, other receivables and also trade payables, refund liabilities and other liabilities disclosed under these items mostly have short remaining terms; the amounts recognized in the balance sheet approximate their fair values.

The fair value of the financial assets and liabilities measured at fair value was derived from stock market prices or, alternatively, using a discounted cash flow method.

Classification of fair value measurements of financial assets and liabilities in accordance with the fair value hierarchy

To take account of the relevance of the estimated parameters used in the fair value measurement of financial assets and liabilities, MTU's financial assets and liabilities are allocated to three levels.

The three levels of the fair-value hierarchy are described below, together with their utilization when measuring financial assets and liabilities:

Level 1 quoted prices in active markets for identical assets or liabilities (unadjusted input);

Level 2 prices of assets or liabilities that can be observed directly or indirectly (derived);

Level 3 unobservable inputs used to measure prices of assets or liabilities.

The convertible bond (2019), which is traded on the stock exchange and is carried at amortized cost, and the corporate bond were assigned to Level 1. All other qualifying financial instruments, especially the derivative financial instruments measured at fair value through other comprehensive income or at fair value through profit or loss are valued using a discounted cash flow (DCF) method and are therefore assigned to Level 2.

The following tables show the allocation of financial assets and liabilities measured at fair value to the three levels of the fair value hierarchy for 2024 and 2023:

Classification within the fair-value hierarchy for the 2024 fiscal year

in € million	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value				
Cash and cash equivalents	625			625
Derivative financial instruments		4		4
Total financial assets	**625**	**4**		**629**
Financial liabilities measured at fair value				
Derivative financial instruments		129		129
Total financial liabilities		**129**		**129**

Classification within the fair-value hierarchy for the 2023 fiscal year

in € million	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value				
Cash and cash equivalents	781			781
Derivative financial instruments		61		61
Total financial assets		**61**		**61**
Financial liabilities measured at fair value				
Derivative financial instruments		47		47
Total financial liabilities		**47**		**47**

Cash outflows for financial liabilities

The following tables list the contractually agreed interest and principal payments for the financial liabilities.

Cash outflows for financial liabilities 2024

		Cash flow 2025			Cash flow 2026			Cash flow 2027			Cash flow 2028 and subsequent years		
in € million	**Carrying amount as of Dec. 31, 2024**	Fixed interest	Variable interest	Principal payments	Fixed interest	Variable interest	Principal payments	Fixed interest	Variable interest	Principal payments	Fixed interest	Variable interest	Principal payments
Refund liabilities	3,305			3,305									
Bonds and notes	1,358	48		500	4			4			4		100
Convertible bonds	492	0			0			0		500			
Promissory note	308	12			12			12		161	11		139
Program liabilities with financing character	405	15		106	14		56	12		42	19		193
thereof: arising from acquisition of stakes in engine programs	55	7		32			19			4			
thereof: due to program participations	350	9		74	14		36	12		38	19		193
Financial liabilities to banks	7	0		3	0		3	0		1			
Lease liabilities	261	8		79	6		51	4		27	11		101
Derivatives without hedging relationship	4			3			0						
Derivatives with hedging relationship	126			1,579			1,136			520			58
Personnel-related financial liabilities	229			133			25			19			70
Other financial liabilities	125			122									

Cash outflows for financial liabilities 2023

		Cash flow 2024			Cash flow 2025			Cash flow 2026			Cash flow 2027 and subsequent years		
in € million	Carrying amount as of Dec. 31, 2023	Fixed interest	Variable interest	Principal payments	Fixed interest	Variable interest	Principal payments	Fixed interest	Variable interest	Principal payments	Fixed interest	Variable interest	Principal payments
Refund liabilities	3,242			3,242									
Bonds and notes	607	19			19		500	4			7		100
Convertible bonds	489	0			0			0			0		500
Program liabilities with financing character	294	11		106	7		54	6		44	6		79
thereof: arising from acquisition of stakes in engine programs	73			37			21			10			5
thereof: due to program participations	221	11		69	7		32	6		34	6		74
Financial liabilities to banks	7			0	0		2	0		2	0		2
Lease liabilities	170	5		42	4		39	3		16	15		63
Derivatives without hedging relationship	7			6			1						
Derivatives with hedging relationship	41			724			181						
Personnel-related financial liabilities	207			114			23			18			70
Other financial liabilities	70			70									

These include all financial instruments in the portfolio at the reporting date for which payment terms had been contractually agreed. Amounts reported for derivatives represent net outflows. Amounts denominated in a foreign currency are translated at the exchange rate at the respective reporting date. Variable-rate interest payments on the financial instruments are based on the most recent interest rate fixed prior to the reporting date. The cash flows relating to the liabilities are assigned to the relevant date on the basis of their contractual repayment dates. If there is no contractually agreed repayment date, they are assigned to the earliest likely repayment date.

Within the scope of its partnerships in engine programs, MTU is a party to aircraft financing agreements for the purpose of promoting sales. Such commitments are always made collectively and in favor of the consortium leader (OEM). They are provided in two basic forms: predelivery payments (PDP) and backstop commitments. In both cases, any funds made available to the aircraft purchaser are always transferred directly to the aircraft manufacturer solely by the consortium leader (OEM).

MTU classifies loan commitments granted up to the reporting date with a total nominal amount, translated into euros, of €889 million (previous year: €831 million), as part of its gross liquidity risk in accordance with the requirements of IFRS 7. However, based on experience, it is considered to be very unlikely that all these nominal loan amounts will actually be utilized to their full extent. This is because the financing terms offered take account of the creditworthiness of the purchaser of the aircraft, based on market practice, through clauses in the credit agreement. The terms for backstop commitments are deliberately prohibitive. In the case of predelivery payments (PDP), the consortium has collateral rights to the aircraft while it is still in production and thus in the possession of the aircraft manufacturer. In the case of backstop commitments, the aircraft is collateral under substantive law. It is to be expected that third parties arrange relevant portions of the financing commitments directly with the purchaser of the aircraft, not least due to the financing conditions.

In addition, as at the reporting date, there were unutilized financing commitments for equity investments in the form of capital contributions or shareholder loans totaling €150 million (previous year: €141 million).

With respect to the notional impact on MTU's liquidity of the financing offers and commitments, the company ensures that it has sufficient liquidity and additional credit lines (see Note 28. Financial liabilities), even in the unlikely event of all financing offers being taken up at the same time, and monitors scope to extend these credit lines to back up future financing offers. In the event that loan commitments are utilized, MTU considers the associated liquidity and credit risks to be manageable.

Explanatory comments relating to net gain/loss on financial instruments by measurement category

The tables below show the gains/losses arising from transactions involving financial instruments, aggregated by measurement category, for the reporting period and the previous year. Interest income and expense in connection with financial assets and liabilities that are measured at fair value through profit or loss are not included:

Net gain/loss on financial assets and liabilities 2024

in € million	from interest	from investments	from remeasurement	Currency translation	Write-down	Net gain / loss 2024
Financial assets measured at amortized cost	38	2		−153	−2	−115
Financial assets measured at fair value through profit or loss			3			3
Financial liabilities measured at amortized cost	−52		−2	−280		−333
Financial liabilities measured at fair value through profit or loss			−5			−5
Total	**−13**	**2**	**−4**	**−433**	**−2**	**−450**

Net gain/loss on financial assets and liabilities 2023

in € million	from interest	from investments	from remeasurement	Currency translation	Write-down	Net gain / loss 2023
Financial assets measured at amortized cost	29	3		71	−7	96
Financial assets measured at fair value through profit or loss			11			11
Financial liabilities measured at amortized cost	−37		−0	136		99
Financial liabilities measured at fair value through profit or loss			−22			−22
Total	**−8**	**3**	**−11**	**207**	**−7**	**184**

Explanatory comments relating to net interest income/expense

The net interest income/expense on financial assets and liabilities includes interest income from long-term loans and interest expenses arising from bonds and notes, convertible bonds, loan agreements with banks and lease liabilities. Interest in connection with financial instruments whose fair value cannot be assigned to a measurement category within the meaning of IFRS 9 is recognized in other financial income/expense. The amount stated for "financial liabilities measured at amortized cost" mainly results from reversing the discount on this category of financial instruments and is recognized in net interest income/expense. With the exception of interest expense relating to pension obligations and leases, interest expense is generally calculated using the effective interest rate method.

Explanatory comments on net gain/loss from equity investments

The profit contributions from equity investments comprise profit transfers from MTU Versicherungsvermittlungs- und Wirtschaftsdienst GmbH, Munich, Germany, and the military program companies.

Explanatory comments on net gain/loss from remeasurement
The net gain/loss on financial instruments measured at fair value through profit or loss mainly comprises exchange rate gains and losses on derivatives not designated in a hedging relationship and is recognized in other financial income/expense.

Explanatory comments on net gain/loss from currency translation
The amounts recognized for currency translation of financial assets and liabilities, measured at cost, result principally from foreign currency measurement of trade receivables, trade payables, and refund liabilities. Amounts relating to receivables and refund liabilities are recognized in revenue, while amounts relating to trade payables are recognized in the associated function costs.

Explanatory comments on net gain/loss from valuation allowances
Alongside the recognition of impairment losses and reversals of impairment losses, the valuation allowances recognized in profit or loss in the reporting period include the derecognition of financial assets for which no valuation allowance has previously been recognized.

The gain/loss from remeasurement in connection with valuation allowances for financial assets (particularly trade receivables and contract assets) is recognized in selling expenses or revenue (revenue-reducing effect).

Further information on the impact on profit/loss can be found in *section II. Notes to the consolidated income statement*.

Offsetting financial assets and financial liabilities
Financial assets and financial liabilities subject to offsetting agreements were as follows:

Offset amounts of financial assets and financial liabilities as of Dec. 31, 2024

	(a)	(b)	(c)	(d)	(e) = (c) − (d)
in € million	Gross amounts of recognized financial assets / liabilities	Gross amounts of recognized financial assets / liabilities offset in the balance sheet	Net financial assets / liabilities recognized in the balance sheet	Related amounts not offset in the balance sheet	Net amount
ASSETS					
Trade receivables	2,292	627	1,665		1,665
Cash and cash equivalents	1,747		1,747		1,747
Other financial assets					
Other interests in related companies	12		12		12
Loans and receivables	973		973		973
Derivative financial assets					
Derivatives without hedging relationship					
Derivatives with hedging relationship	4		4	4	–0
EQUITY AND LIABILITIES					
Refund liabilities	3,305		3,305		3,305
Trade payables	1,131	627	504		504
Financial liabilities					
Bonds and notes	1,358		1,358		1,358
Convertible bonds 2019	492		492		492
Promissory note	308		308		308
Financial liabilities to banks	7		7		7
Financial liabilities to related companies	2		2		2
Lease liabilities	261		261		261
Program liabilities with financing character					
thereof: arising from acquisition of stakes in engine programs	55		55		55
thereof: due to program participations	350		350		350
Derivative financial liabilities					
Derivatives without hedging relationship	4		4		4
Derivatives with hedging relationship	126		126	4	122
Personnel-related financial liabilities	229		229		229
Other financial liabilities	125		125		125

Offset amounts of financial assets and financial liabilities as of Dec. 31, 2023

in € million	(a) Gross amounts of recognized financial assets / liabilities	(b) Gross amounts of recognized financial assets / liabilities offset in the balance sheet	(c) Net financial assets / liabilities recognized in the balance sheet	(d) Related amounts not offset in the balance sheet	(e) = (c) − (d) Net amount
ASSETS					
Trade receivables	1,493	483	1,010		1,010
Cash and cash equivalents	883		883		883
Other financial assets					
Other interests in related companies	17		17		17
Loans and receivables	734		734		734
Derivative financial assets					
Derivatives without hedging relationship					
Derivatives with hedging relationship	61		61	41	20
EQUITY AND LIABILITIES					
Refund liabilities	3,242		3,242		3,242
Trade payables	808	483	325		325
Financial liabilities					
Bonds and notes	607		607		607
Convertible bonds	489		489		489
Lease liabilities	170		170		170
Miscellaneous other financial liabilities (financing component)					
thereof: arising from acquisition of stakes in engine programs	73		73		73
thereof: from imbalance payments due to program participations	221		221		221
Derivative financial liabilities					
Derivatives without hedging relationship	7		7		7
Derivatives with hedging relationship	41		41	41	−0
Personnel-related financial liabilities	207		207		207
Other financial liabilities	70		70		70

The “Related amounts not offset in the balance sheet” presented in the table refer to financial assets and liabilities arising from derivatives that can be offset against debt if the issuer becomes insolvent.

34. Deferred taxes

Deferred tax assets and liabilities arise on temporary differences between the tax bases of assets and liabilities of the individual Group companies and the corresponding carrying amounts in the consolidated balance sheet. Deferred tax assets were also recognized for tax credits and losses available for carry-forward.

Deferred tax assets and liabilities were recognized in OCI in connection with the subsequent measurement of pension obligations and the corresponding plan assets and in connection with the fair value measurement of derivative financial instruments which were part of an effective hedging relationship, and in respect of the difference between the fair value and carrying amounts of the equity components of the convertible bonds.

Development of deferred taxes

	Dec. 31, 2024		Dec. 31, 2023		2024	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities	Tax income / expense (-)	Recognized in equity / OCI
in € million	in the balance sheet		in the balance sheet		in the income statement	
Assets						
Intangible assets	0	227	0	225	-3	-0
Property, plant and equipment	18	112	16	89	-20	0
Financial assets		11	2	9	-4	0
Inventories	60		64		-4	-0
Acquired program assets, development work	78	38	65	37	12	-1
Receivables and other assets	118	5	111	4	6	-0
Total assets	**274**	**394**	**257**	**364**	**-13**	**-1**
Equity						
Gains and losses from the measurement of derivatives with hedging relationship	31		2	9		38
Equity portion of convertible bond		12		12		
Actuarial gains/losses on pension obligations and plan assets	93		96			-3
Total equity	**125**	**12**	**98**	**21**		**35**
Liabilities						
Pension provisions		34		29	-5	
Other provisions	20	0	10	0	10	0
Refund liabilities	261		303		-42	
Liabilities	120	39	97	41	26	1
Total liabilities	**402**	**73**	**411**	**71**	**-12**	**1**
Deferred taxes on assets and liabilities	**800**	**480**	**766**	**456**	**-25**	**35**
Tax credits and tax loss carry-forwards						
Tax credits available for carry-forward	37		37		-1	1
Tax loss carry-forwards	1		2		-1	0

Valuation allowances and unrecognized recoverable tax payments						
Valuation allowances on tax credits carried forward	–7		–3		–4	–0
Valuation allowances on tax loss carry-forwards	–0		–1		1	–0
Temporary differences for which no deferred tax assets were recognized	–19		–17		–1	–0
Total tax credits and loss carry-forwards	**12**		**18**		**–6**	**0**
Deferred tax assets/liabilities before offset	**812**	**480**	**784**	**456**	**–31**	**36**
Offset	–480	–480	–456	–456		
Net deferred tax assets/liabilities	**333**	**–0**	**328**	**0**	**–31**	**36**

Please refer to *Note 10. Income taxes* for further information relating to current and deferred income tax assets and liabilities resulting from the balance sheet items listed above and to the tax reconciliation between the expected and recognized tax expense.

Tax assets and liabilities are offset against one another only if they relate to the same type of tax levied by the same tax jurisdiction and are due within the same period.

Deferred tax assets were recognized for tax losses available for carry-forward and tax credits available for carry-forward for Group companies based in the following countries:

Deferred tax assets recognized for tax losses/credits available for carry-forward as of Dec. 31

in € million	USA 2024	Poland 2024	Total 2024	Total 2023
Tax credits available for carry-forward	1	36	37	37
Tax losses available for carry-forward	1	1	1	2
Potential tax impact of tax losses/credits available for carry-forward	**2**	**37**	**39**	**39**
Valuation allowances on tax credits carried forward		–7	–7	–3
Valuation allowances on tax losses carried forward	–0		–0	–1
Deferred tax assets recognized for tax losses/credits available for carry-forward	**2**	**29**	**31**	**35**

USA

Tax losses available for carry-forward at MTU Aero Engines North America Inc., (AENA), Rocky Hill, CT, USA, as at December 31, 2024, relate exclusively to state tax, which, after the application of valuation allowances, amounted to the equivalent of €3 million (previous year: €4 million).

Furthermore, recoverable tax credits are recognized for the tax types that mainly result from development activities. For these recoverable tax credits, deferred tax assets were also recognized.

Poland

MTU Aero Engines Polska sp. z o.o. receives government support through Poland's economic development program by virtue of its location in a special economic zone. Because its business investments help to create jobs, the company has been awarded tax credits in respect of the profits it expects to achieve through its production activities, with separate amounts being accorded each year through to 2026. Deferred tax assets amounting to €29 million (previous year: €33 million) were recognized on the basis of the business investments realized up to the reporting date, taking into account the currently expected earnings from the activities for which tax credits were awarded.

The reduction in current tax expense resulting from tax credits was €3 million. In Poland, deferred tax assets for tax credits were written down by €4 million. Tax credits that have not yet been utilized and for which no deferred tax assets are recognized on the balance sheet amount to €7 million. They expire in 2027.

At the reporting date, there were temporary differences amounting to €99 million (previous year: €91 million) for which no deferred tax assets were recognized, in view of the relevant income expectations for the next five years. The resulting tax relief effect of €19 million (previous year: €17 million) was therefore not taken into account in the calculation of the income tax expense.

Serbia

In connection with the establishment and ramp-up of the facility in Serbia, MTU was granted an incentive, including a "tax holiday," based on the amount invested and the creation of new jobs. In the reporting period, this incentive did not meet the requirements for recognition in the balance sheet; accordingly, it had no effect on the Group's deferred taxes.

Deferred tax liabilities for taxable differences arising from investments in subsidiaries and joint ventures

In accordance with IAS 12, no deferred tax liabilities were recognized for temporary differences amounting to €156 million (previous year: €123 million) that arose in connection with investments in subsidiaries and joint ventures because MTU is partially able to control the timing of the reversal of the temporary difference. If, in the future, these differences meet the requirements for recognizing deferred tax liabilities, they would result in a tax liability amounting to €16 million (previous year: €12 million), based on current tax legislation.

IV. Other disclosures

35. Financial risks

In the ordinary course of business, MTU is exposed to credit risks, liquidity risks and market risks. The objective of financial risk management is to minimize the risks arising from operating activities and the resulting financing requirements through the use of selected derivative and non-derivative hedging instruments.

Risks in connection with the procurement, financing and sale of MTU's products and services are described in detail in the management report. In order to counter financial risks, MTU has put in place an integrated risk management system, which is monitored by the Supervisory Board. The principles of this system aim at promptly identifying, analyzing, and communicating risks and taking countermeasures. Market risks, particularly the net exposure from currency risks and commodity price risks, are analyzed in respect of their potential impact on the Group's assets, financial position and results of operations and mitigated through the targeted use of derivative financial instruments.

Credit risks

MTU is exposed to credit risks arising from its operating activities in both the OEM and MRO segments. From the perspective of the MTU Group, the risk situation deteriorated further in the reporting period, especially given the geopolitical developments in connection with the Russia-Ukraine war and the Israel-Palestine conflict in the Middle East. The more difficult refinancing conditions led to a reduction in the credit ratings of some customers of direct relevance for MTU and customers of the program consortia in which it has stakes.

In view of the importance of managing credit risks, engine and aircraft financing arrangements to which MTU is a party as a result of its engine program and MRO alliances are managed by a team of sales specialists, supported by advice from the central Legal and Treasury departments. Further details of engine and aircraft financing arrangements can be found in *Note 33. Additional disclosures relating to financial instruments*.

Financing transactions in connection with liquidity management, e.g., time deposits or forward foreign exchange contracts, also expose the Group to a certain degree of credit risk. MTU's internal guidelines therefore stipulate that such transactions may only be entered into centrally by the central Treasury department, and only with contracting parties with a credit rating of at least investment grade. Counterparty limits are assigned and monitored on the basis of credit rating and company size.

The carrying amounts of the financial assets recognized on the balance sheet, i.e., trade receivables, contract assets, cash and cash equivalents, and other financial assets, plus the amount of financial guarantees and financing commitments, reflect their maximum credit risk. The reduction in the carrying amounts is attributable to lower potential for netting against corresponding liabilities and collateral under substantive law, and to the business growth in both the OEM and the MRO segment. The unsecured portions of financial assets were included in the calculation of the expected credit losses using an impairment matrix. For this purpose, the assets were allocated to groups with credit standings A, B and C, for which the respective credit loss rate was determined using published information and/or credit ratings from international agencies:

Expected credit losses as of Dec. 31, 2024

in € million	Credit standing A	Credit standing B	Credit standing C	Total
Expected credit loss rate	0.07%	1.41%	4.68%	
Gross amount	4,233	203	286	4,722
Expected credit losses	3	3	13	19

Expected credit losses as of Dec. 31, 2023

in € million	Credit standing A	Credit standing B	Credit standing C	Total
Expected credit loss rate	0.07%	1.43%	4.68%	
Gross amount	2,734	162	202	3,098
Expected credit losses	2	2	9	14

In addition, individual value allowances are recognized in cases where credit losses are specifically expected. Further details can be found in *Note 21. Contract assets*. Other than participation in collateralization rights relating to engine and aircraft financing arrangements, there were no material agreements at the reporting date that could reduce the maximum credit risk. Nonetheless, MTU is exposed to other, proportionate liability risks as a result of its membership in engine consortia and therefore to potential additional credit risks, especially in the commercial engine business. More details are provided in *Note 37. Contingent liabilities and financial liabilities*.

Market risks

Currency risks

More than 85% of MTU's revenue is currently generated in U.S. dollars. It is assumed that over 75% of the currency risk relating to the revenue generated is naturally hedged by expenditures in U.S. dollars. The remaining expenses are incurred mainly in euros, and to a lesser extent in Canadian dollars and Polish zloty. As standard practice, the Group applies the hedging strategy outlined below for its exposure to U.S. dollar currency risks that are not naturally hedged. With regard to the remaining currency risks, which are not deemed to be material and are not part of the hedging strategy, changes in exchange rates have a direct impact on net income and the cash flow.

Hedging strategy

MTU uses a defined hedging model to hedge defined portions of its expected foreign currency risk from revenue-generating transactions in U.S. dollars (hedged item). The purpose is to minimize the impact of the volatility of the U.S. dollar exchange rate on net income and the cash flow. The forward foreign exchange contracts generally used for this purpose are designated as financial instruments to hedge cash flows from expected sales realized in U.S. dollars. The hedge ratio decreases the longer the hedging horizon is.

An economic hedging relationship exists between the hedged item and the hedging instrument, since the terms of the forward foreign exchange contracts correspond to the terms of the highly probable forecast transactions with regard to the nominal amount and the expected payment date. MTU uses the hypothetical derivative method to measure the effectiveness of the hedge and prospectively compares the changes in fair value of the hedging instrument with the changes in fair value of the hedged items that are attributable to the hedged risk.

Hedge ineffectiveness can arise for a number of reasons:

- when the timing of the cash flows from the hedged item and the hedging instruments differs or the expected amount of cash flows from the hedged item and the hedging instrument changes. MTU considers it unlikely that an effective risk could arise in such cases since only the expected gross revenue volume in U.S. dollars is hedged as a proportion of the underlying transaction through derivatives, and sufficient gross foreign currency cash inflows (U.S. dollar revenue) are therefore available to service the hedging instruments.
- different effects of the counterparty credit risk on the changes in fair value of the hedged item and the hedging instrument. MTU believes that this poses a low effective risk because all banks with which MTU enters into hedging transactions and MTU itself must have an investment grade rating. The priced credit risk between MTU and the commercial banks is therefore very low at present and thus immaterial.

Translation differences arising from the translation of financial statements of international subsidiaries into the Group's functional currency and effects from measurement at the closing rate (translations risks) are not included when deriving the hedging volume.

As at December 31, 2024, MTU held open forward foreign exchange contracts with maturities up to March 2028 in a nominal amount of U.S.$3,620 million. This corresponded to holdings of €3,484 million, translated at the closing rate. The fair values of the open forward foreign exchange contracts maturing in and after 2025 decreased by €162 million in the reporting period (previous year: increased by €50 million for maturities in and after 2024). Changes in the value of the hedged item correspond to those of the hedging instrument, so that the hedging instruments were effective. As at December 31 of the previous year, MTU had hedged cash flows for fiscal years 2024 through 2027 amounting to U.S.$2,920 million (which translates into €2,643 million at the exchange rate prevailing on December 31, 2023).

The forward foreign exchange contracts open at the reporting date had the following maturities:

Cash flow hedges

	Dec. 31, 2024			
	Due in less than 1 year	Due in more than 1 year and less than 2 years	Due in more than 2 years	Total
Forward foreign exchange contracts				
Nominal amounts (in U.S.$ million)	1,740	1,280	600	3,620
Average forward rate (€/U.S.$)	1.10	1.11	1.13	1.10
thereof recognized as				
Financial assets				
Nominal amounts (in U.S.$ million)				200
Carrying amounts of the spot component (in € million)				11
Financial liabilities				
Nominal amounts (in U.S.$ million)				3,420
Carrying amounts of the spot component (in € million)				94

Cash flow hedges

	Dec. 31, 2023			
	Due in less than 1 year	Due in more than 1 year and less than 2 years	Due in more than 2 years	Total
Forward foreign exchange contracts				
Nominal amounts (in U.S.$ million)	1,460	1,020	440	2,920
Average forward rate (€/U.S.$)	1.13	1.10	1.09	1.12
thereof recognized as				
Financial assets				
Nominal amounts (in U.S.$ million)				1,920
Carrying amounts of the spot component (in € million)				98
Financial liabilities				
Nominal amounts (in U.S.$ million)				1,000
Carrying amounts of the spot component (in € million)				15

As at the reporting date at the end of fiscal year 2024, the following amounts were recognized in equity for financial instruments measured at fair value through other comprehensive income:

Impact of hedging relationships on equity

in € million	Hedge reserves	Hedging costs reserves	Total
Carrying amount as of Jan. 1, 2023	**–24**	**–32**	**–56**
Changes in fair value of (derivative) financial instruments that are part of hedging	120	44	164
Amounts recycled to profit or loss, to revenues or other operating income/expense	–9	–52	–61
Deferred taxes	–36	2	–33
Carrying amount as of Jan. 1, 2024	**51**	**–37**	**14**
Changes in fair value of (derivative) financial instruments that are part of hedging	–113	82	–30
Amounts recycled to profit or loss, to revenues or other operating income/expense	–31	–56	–88
Deferred taxes	46	–8	38
Carrying amount as of Dec. 31, 2024	**–46**	**–19**	**–65**

No transactions were hedged in prior periods that are no longer expected to occur.

As a further element of its hedging strategy, MTU uses derivative financial instruments in the form of commodity derivatives that are not part of a hedging relationship as defined by IFRS 9.

Currency swaps

In the course of the 2024 reporting period, U.S. dollars were sold or purchased at the daily rate. The transactions were closed after a short time through swaps. As the selling and buying rates differ only marginally, these swaps are immaterial in terms of risk. The purpose of these transactions was to optimize liquidity in U.S. dollars.

Exchange rate sensitivity analysis

The sensitivity analysis showing the effects of hypothetical changes in exchange rates on net income and equity relates to the foreign currency positions included in the respective balance sheet items at the reporting date. In this context, it is assumed that the volume at the reporting date is representative of the full year.

As at December 31, 2024, significant portions of trade receivables (U.S.$1,465 million), other financial assets (U.S.$964 million), refund liabilities (U.S.$3,373 million), program liabilities with financing character (U.S.$424 million), trade payables (U.S.$378 million), lease liabilities (U.S.$128 million) and miscellaneous other financial liabilities (U.S.$75 million) were invoiced in U.S. dollars and were therefore subject to exchange rate fluctuations as at the reporting date. All other non-derivative financial instruments to which hedge accounting is not applied are already denominated in the Group's functional currency (the euro), and are therefore not included in the exchange rate sensitivity analysis. The equity instruments held by the Group are not of a monetary nature and therefore do not present a currency risk as defined by IFRS 7.

If the exchange rate of the euro to the U.S. dollar at December 31, 2024, or at the prior-year reporting date had been 10% higher or lower, this would have produced the following hypothetical effects on net income and equity, particularly due to the effects of measurement of foreign currency receivables and liabilities on the reporting date:

Exchange rate sensitivity analysis

	2024		2023	
in € million	-10%	+10%	-10%	+10%
Exchange rate sensitivity (€/U.S.$)				
Closing exchange rate Dec. 31, 2024: 1.0389 (Dec. 31, 2023: 1.1050)	0.94	1.14	0.99	1.22
Net income	**–170**	**139**	**–185**	**152**
Equity [1]	**–200**	**164**	**–153**	**126**

[1] After tax.

Interest rate risks

MTU is exposed to interest rate risks directly in connection with increases in financial liabilities and indirectly in calculating the present values of assets, liabilities and provisions (e.g., program liabilities, goodwill and pension provisions). After deducting present values, MTU is in a net debt position in relation to financial liabilities. The interest rates on financial liabilities are currently stipulated in the agreements, while interest income from investing cash and cash equivalents is aligned with the short-term money market indices.

Changes in the market interest rate of non-derivative financial instruments bearing fixed market interest rates have an effect on net income and equity only if these financial instruments are measured at fair value through profit or loss or were classified as such at initial recognition. Consequently, all fixed-interest financial instruments measured at amortized cost have no interest-rate-induced effects on net income and equity that have to be accounted for, apart from future amounts to be charged to net interest income/expense.

In fiscal year 2024, floating-rate financial instruments and financial instruments measured at fair value held at the reporting date were not exposed to any significant interest rate risks.

Price risks

There is a general risk of price increases for commodities. This risk is mitigated mainly by procuring goods with corresponding multi-year price agreements and only to a small extent by supplementary derivative financial instruments.

As at December 31, 2024, MTU had entered into nickel forward contracts with credit institutions for a volume of 1,400 metric tons of nickel (previous year: 1,050 metric tons) for the years 2025 through 2026 and contracted fixed prices for nickel of between U.S.$16.1 thousand and U.S.$23.3 thousand per metric ton (previous year: between U.S.$18.2 thousand and U.S.$31.2 thousand per metric ton).

If the market price of nickel on the respective due date is higher than the agreed fixed price, MTU receives a compensation payment from the nickel forward contracts amounting to the difference. If the market price of nickel is lower, MTU is obliged to make a payment to the bank. Hedge accounting within the meaning of IFRS 9 was not applied to these transactions. The change in fair value of €-3 million (previous year: €-13 million) arising from these forward commodity purchases is recognized in other financial income/expense. For further information see *section II. Notes to the consolidated income statement, Note 9. Other financial income/expense*.

If the market prices in nickel forward contracts had been 10% higher or lower, net income would have been €1 million (previous year: €2 million) higher or lower.

Liquidity risks

MTU's liquidity risk relates to the potential inability to meet payment obligations as due, including meeting potential obligations related to financing commitments, because insufficient cash or cash equivalents are available. In order to ensure the solvency and financial flexibility of MTU at all times, credit lines and liquid funds are managed on the basis of multi-year corporate planning and rolling monthly liquidity planning.

Liquidity is invested mainly in demand deposits, money market funds and other short-term money market papers. The maturity profile of invested amounts is based on liquidity planning and takes into account the availability of a suitable amount of reserves at all times. In addition, MTU has access to a long-term, syndicated credit facility in the amount of €500 million. The liquidity reserves available from credit facilities that have not been drawn down and available cash and cash equivalents support MTU's estimation that the company is adequately prepared in terms of liquidity to ensure solvency in times of business growth and advancement, as well as against a backdrop of multiple crises negatively impacting the macroeconomic environment.

For further information, see *Note 28. Financial liabilities*, and *Note 33. Additional disclosures relating to financial instruments* as well as *section I. Accounting policies and principles – Discretionary scope, measurement uncertainties and sensitivity*.

36. Leases

Group as lessee

The Group has entered into leases for land and buildings, technical equipment and machinery, and operational and office equipment.

The Group primarily acts as lessee in the following cases:

- Real estate leases for production, logistics and office capacities (land and buildings). Some of the underlying contracts include price escalation clauses linked to the consumer price index. The lease terms are between two and 17 years; some leases have renewal options.
- Leasing of vehicles and industrial trucks (operational and office equipment). The underlying leases regularly take into account variable components of the lease rates. The lease terms are between two and five years; some leases have renewal options.
- Engine leasing (operational and office equipment): The underlying leases may take into account variable components of the lease rates. The lease terms are between a few months and 7 years; some leases have renewal options. Engines are provided to MRO customers on the basis of sub-leases.

The tables below show the changes in carrying amounts and depreciation expenses of the right-of-use assets recognized in the balance sheet:

Right-of-use assets 2024

in € million	As of Jan. 1, 2024	Currency translation differences or foreign currency valuation	Additions	Transfers	Disposals	As of Dec. 31, 2024
Purchase cost						
Land, leasehold rights and buildings, including buildings on third-party land	144	–0	40		–0	184
Technical equipment, plant and machinery	2					2
Other equipment, operational and office equipment	112	0	114		–31	195
Total purchase cost	**258**	**–0**	**154**		**–31**	**381**
Depreciation						
Land, leasehold rights and buildings, including buildings on third-party land	–44	–0	–14			–58
Technical equipment, plant and machinery	–2					–2
Other equipment, operational and office equipment	–50	–0	–49		16	–83
Total depreciation	**–97**	**–0**	**–63**		**16**	**–143**
Carrying amount	**161**	**–0**	**92**		**–14**	**238**

Right-of-use assets 2023

in € million	As of Jan. 1, 2023	Currency translation differences or foreign currency valuation	Additions	Transfers	Disposals	As of Dec. 31, 2023
Purchase cost						
Land, leasehold rights and buildings, including buildings on third-party land	115	–1	30		–0	144
Technical equipment, plant and machinery	2					2
Other equipment, operational and office equipment	119	0	66		–73	112
Total purchase cost	**236**	**–1**	**96**		**–73**	**258**
Depreciation						
Land, leasehold rights and buildings, including buildings on third-party land	–32	0	–13		0	–44
Technical equipment, plant and machinery	–2					–2
Other equipment, operational and office equipment	–43	–0	–41		34	–50
Total depreciation	**–77**	**0**	**–54**		**34**	**–97**
Carrying amount	**158**	**–1**	**43**		**–39**	**161**

In the reporting period, additions to right-of-use assets in the area of land, leasehold rights and buildings, including buildings on third-party land, mainly relate to the lease of production space in Munich Allach, a number of contract renewals at the Munich site, and the first-time consolidation of MTU Maintenance Dallas. The development of right-of-use assets in the area of operational and office equipment is related to the positive business development of MTU's engine leasing business. In the reporting year, this involved in particular the leasing of additional engines over several years in order to market them through subleases. The latter also had a particular impact on the income from the subleasing of right-of-use assets shown in the table below. Further information on this can be found under *Group as lessor* below. The maturity analysis for lease liabilities is presented in *Note 33. Additional disclosures relating to financial instruments*.

Additional information on leases:

in € million	**2024**	2023
Income		
Income from subleasing right-of-use-assets	118	69
Gains arising from sale and leaseback transactions	0	
Lease income	**118**	**69**
Expenses		
Depreciation of right-of-use assets	63	54
Impairment losses on right-of-use assets		–0
Interest expense for lease liabilities	8	4
Short-term lease expense	4	3
Low-value asset lease expense	2	2
Variable lease payment expense not included in the measurement of lease liabilities	49	26
Lease expense	**126**	**89**

In the reporting period, the Group's cash outflows for leases amounted to €130 million (previous year: €114 million). Future cash outflows for amounts not recognized on the balance sheet are presented below in *Note 37. Contingent liabilities and other financial obligations*.

Group as lessor

MTU leases out engines that are owned by the Group as well as engines that are leased by MTU. The leases generally have terms of between a few months and three years. In this context, tailored engine leases are offered by the Group to its customers, especially airlines. The engines are primarily leased out under operating leases. Extension and premature termination options are granted on a case-by-case basis. MTU protects itself by defining certain leasing conditions that must be met by the customer at the end of the lease. If these conditions are not met, the customer is liable.

The maturity analyses of lease payments are as follows:

Maturity analysis of operating lease payments

in € million	Dec. 31, 2024	Dec. 31, 2023
Expected cash inflows from operating leases		
Less than 1 year	39	27
1 to 2 years	9	8
2 to 3 years	1	1
3 to 4 years	1	1
4 to 5 years	1	0
More than 5 years	0	0
Total	**50**	**37**

Lease revenue of €182 million was earned from operating leases in the reporting period (previous year: €108 million). MTU acts as a lessor primarily through the leasing of engines, which are recognized as technical equipment, operational and office equipment. The corresponding net carrying amounts are €80 million for owned engines (previous year: €54 million) and €65 million for leased right-of-use assets (previous year: €49 million).

37. Contingent liabilities and other financial obligations

Contingent liabilities

The following table contains an overview of the contingent liabilities of the MTU Group on the reporting date for 2024 and the previous year.

Contingent liabilities

in € million	Dec. 31, 2024	Dec. 31, 2023
Bank guarantees	58	44
Guarantees and other contingent liabilities	355	364
Total contingent liabilities	**414**	**408**

As they had done on December 31, 2023, contingent liabilities as at the reporting date comprised legal costs and liability risks relating to arbitration proceedings to which MTU is a party through its stakes in commercial engine programs (OEM). In the reporting period, there were still no amounts due and payable.

Analogously to previous years, bank guarantees and guarantees and other contingent liabilities, other than the pro rata liability relating to consortia, principally comprise contract fulfillment and customs bonds of a customary amount and guarantees assumed for credit facilities and investment subsidies.

Founded in 2019 and consolidated for the first time in 2021, MTU Maintenance Serbia d.o.o. received public sector grants related to the site's establishment and construction. MTU also receives a small amount of public sector grants and assistance to subsidize research and development expenses. The risk of repayment obligations exists until such time as the relevant project has been completed and all the conditions associated with it have been met. At the reporting date, the probability that risks of this kind could materialize was deemed to be very low.

In addition, as at the reporting date, there were unutilized financing commitments for equity investments in the form of committed capital contributions or shareholder loans totaling €150 million (previous year: €141 million) as well as commitments to OEM customers relating to shares in sales financing commitments in respect of commercial engine programs. As at the reporting date, the unutilized nominal amount of such financing commitments was €889 million (previous year: €831 million). MTU treats these commitments as a component of its gross liquidity risk within the meaning of IFRS 7. For further information, please see *Note 33. Additional disclosures relating to financial instruments*.

Other financial obligations

Obligations arising from leases

The breakdown by maturity of total future cash outflows for leases for which lease liabilities have not yet been recognized because the criteria have not (yet) been met was as follows in the previous year:

Future cash outflows from leases

in € million	**Dec. 31, 2024**	Dec. 31, 2023
Leases that have not yet commenced		
Due in less than 1 year		2
Due in more than 1 year and less than 5 years		9
Due in more than 5 years		
Total future cash outflows from leases		**11**

Purchase commitments for financial obligations

As at December 31, 2024, purchase commitments amounted to €305 million (previous year: €7 million) for the purchase of intangible assets, in particular in connection with the acquisition of further MRO program stakes in the reporting year, and to €137 million (previous year: €220 million) for the purchase of property, plant and equipment. They were therefore within the normal scope for the business, taking into account the expansion investments.

38. Related party disclosures

Related companies

Transactions between Group companies and joint ventures or associates were, without exception, entered into in the normal course of business and, on principle, on an arm's length basis.

Transactions between consolidated companies were eliminated in the consolidated financial statements and are therefore not disclosed separately in this Note.

Business with related companies

In the reporting period, intragroup transactions involving the supply of goods and services were conducted by Group companies as part of their normal operating activities (e.g., development, repairs, assembly, IT support). In the reporting period and the previous year, the following transactions resulting in current receivables and liabilities were entered into on an arm's length basis with related companies that are not consolidated:

Trade receivables from invoiced and trade payables to related companies

	Trade receivables		Trade payables	
in € million	**Dec. 31, 2024**	Dec. 31, 2023	**Dec. 31, 2024**	Dec. 31, 2023
Associates	622	311	23	19
Joint ventures	148	89	109	50
Subsidiaries accounted for at fair value	5	7	0	0
Total	**775**	**407**	**132**	**69**

The balance sheet items mentioned above explicitly do not take into account the additional accrued assets and liabilities in the form of contract assets and liabilities or refund liabilities.

Income/expense from invoiced deliveries and services from related companies

in € million	Income Dec. 31, 2024	Income Dec. 31, 2023	Expenses Dec. 31, 2024	Expenses Dec. 31, 2023
Associates	2,577	2,442	-1,296	-1,114
Joint ventures	579	552	-844	-710
Subsidiaries accounted for at fair value	4	3	-41	-35
Total	**3,160**	**2,997**	**-2,181**	**-1,859**

Furthermore, there is a guarantee of €144 million for credit lines of the joint venture EME Aero sp. z o.o. This guarantee is recognized as a contingent liability (guarantees and other contingent liabilities).

In addition, there are unutilized financing commitments to EME Aero sp. z o.o., Ceramic Coating Center SAS, Airfoil Services Sdn.Bhd., and AES Aerospace Embedded Solutions GmbH in the form of committed capital contributions or shareholder loans totaling €150 million. More details are provided in *Note 37. Contingent liabilities and financial liabilities*.

Major shareholdings

The list of major shareholdings shows the equity investments of MTU Aero Engines AG, Munich, and the equity of each company as at December 31, 2024:

List of shareholdings

Name and registered office of entity	Shareholding (in %) Dec. 31, 2024
I. Investments in subsidiaries	
3D.aero GmbH, Hamburg, Germany [1]	100.00
eMoSys GmbH, Starnberg, Germany [1]	100.00
MS Engine Leasing LLC, Rocky Hill, USA [3]	75.20
MTU Aero Engines Finance Netherlands B.V., Amsterdam, Netherlands [1]	100.00
MTU Aero Engines North America Inc., Rocky Hill, USA	100.00
MTU Aero Engines Polska sp. z o.o., Jasionka, Poland	100.00
MTU Aero Engines (Shanghai) Ltd., Shanghai, China [1]	100.00
MTU Maintenance Berlin-Brandenburg GmbH, Ludwigsfelde, Germany	100.00
MTU Maintenance Canada Ltd., Delta, Canada	100.00
MTU Maintenance Dallas Inc., Grapevine, USA	100.00
MTU Maintenance Hannover GmbH, Langenhagen, Germany	100.00
MTU Maintenance do Brasil LTDA, Cotia, Brazil [1]	100.00
MTU Maintenance Lease Services B.V., Amsterdam, Netherlands	100.00
MTU Maintenance Serbia d.o.o., Nova Pazova, Serbia	100.00
MTU Maintenance Australia Pty. Ltd., Perth, Australia [1] (former MTU Maintenance Service Centre Australia Pty. Ltd.)	100.00
MTU Maintenance Service Centre Ayutthaya Ltd., Ayutthaya, Thailand [1]	100.00
MTU Maintenance Singapore Pte. Ltd., Singapore [1]	100.00
MTU Versicherungsvermittlungs- und Wirtschaftsdienst GmbH, Munich, Germany [1]	100.00
II. Investments in associates	
IAE International Aero Engines AG, Zurich, Switzerland [2]	25.25
IAE International Aero Engines LLC, East Hartford, USA [2]	18.00
PW 1100G_JM Engine Leasing LLC, East Hartford, USA [2]	18.00

Name and registered office of entity	Shareholding (in %) Dec. 31, 2024
III. Equity investments in joint ventures	
AES Aerospace Embedded Solutions GmbH, Munich, Germany [2]	50.00
Airfoil Services Sdn. Bhd., Kota Damansara, Malaysia [2]	50.00
Ceramic Coating Center S.A.S., Paris, France [2]	50.00
EME Aero sp.z.o.o., Jasionka, Poland [2]	50.00
EPI Europrop International GmbH, Munich, Germany [1]	28.00
EUMET GmbH, Munich, Germany [1]	50.00
EURA SAS, Bordes, France [1]	50.00
EUROJET Turbo GmbH, Hallbergmoos, Germany [1]	33.00
MTU Maintenance Hong Kong Ltd., Hong Kong, China [1] [3]	50.00
MTU Maintenance Zhuhai Co. Ltd., Zhuhai, China [2]	50.00
MTU Turbomeca Rolls-Royce GmbH, Hallbergmoos, Germany [1]	33.33
MTU Turbomeca Rolls-Royce ITP GmbH, Hallbergmoos, Germany [1]	25.00
Pratt & Whitney Canada Customer Service Centre Europe GmbH, Ludwigsfelde, Germany [2] [3]	50.00
Turbo Union GmbH, Hallbergmoos, Germany [1]	39.98
GSB - Sonderabfall-Entsorgung Bayern GmbH, Baar-Ebenhausen, Germany [1]	0.10

[1] Not included in the consolidated financial statements due to immateriality.
[2] Not accounted for using the equity method due to immateriality.
[3] Indirect shareholding.

Non-controlling interests

The non-controlling interests comprise Sumitomo Group's 24.80% interest in MS Engine Leasing LLC.

Non-controlling interests

in € million	Dec. 31, 2024	Dec. 31, 2023
Percentage of non-controlling interests	**24.80%**	**24.78%**
Non-current assets	292	263
Current assets	0	11
Net assets	**292**	**274**
Net assets of non-controlling interests companies	**74**	**70**
Gains (+)/Losses (-)	38	21
Other comprehensive income	19	–13
Comprehensive income	**57**	**8**
Non-controlling interests assigned profit	**9**	**5**
Non-controlling interests assigned other comprehensive income	**5**	**–3**
Cash flow from operating activities	26	22
Cash flow from financing activities	–37	19
thereof: dividend for minority-owned companies	9	3

Related persons

Other than the transactions specified in Other related party transactions, no Group companies entered into transactions subject to disclosure requirements with members of the Group's Executive Board or Supervisory Board, or with close members of their families.

Members of the Executive Board

As at December 31, 2024, the Executive Board of MTU Aero Engines AG, Munich, had the following members:

Members of the Executive Board

Lars Wagner Chief Executive Officer
Peter Kameritsch Chief Financial Officer and Chief Information Officer
Michael Schreyögg Chief Program Officer
Dr. Silke Maurer Chief Operating Officer

Executive Board compensation

Detailed information on the compensation system in place for members of MTU's Executive Board, the amounts paid to individual board members, and other compensation-related details are provided in the *Management compensation report*.

The members of the Executive Board received total compensation amounting to €18 million (previous year: €11 million) for their work as board members in fiscal year 2024. Total compensation breaks down into the following components:

Compensation of the Executive Board

	2024		2023	
	in € million	in %	in € million	in %
Short-term employee benefits				
Non-performance-related components	3		3	
Performance-related components without long-term incentive effect	7 [1]		2 [1]	
Performance-related components with long-term incentive effect	7 [2]		3 [1]	
Total	**17**	**95**	**8**	**72**
Post-employment benefits				
Pension expenses (IAS 19)	1		3	
Total	**1**	**5**	**3**	**28**
Total compensation	**18**	**100**	**11**	**100**

[1] Components granted for the reporting period (or previous year) that are paid out in the year after they were granted.
[2] Fair value of the PSP/LTI tranche 2024 as at December 31, 2024; payment only occurs at the end of the performance period, after determination of the target achievement in fiscal year 2028. The fair value upon granting as at January 1, 2024 was €166.34/performance share, corresponding to a total of 20,708 conditionally allocated performance shares.

Furthermore, a total of 20,708 performance shares were conditionally allocated to the Executive Board for the reporting year as part of the performance-related components with a long-term incentive effect (PSP/LTI), based on a fair value upon granting of €166.34 per performance share as at January 1, 2024.

Members of the Executive Board did not receive any compensation for board appointments in Group companies.

In the reporting period, as in the previous year, no loans or advances were granted to members of the Executive Board. Similarly, as in the previous year, no contingent liabilities were assumed by the company in favor of members of the Executive Board.

Provisions for pensions and entitlements of former Executive Board members were €22 million as at December 31, 2024 (previous year: €22 million).

Compensation of the Supervisory Board members

Detailed information on the compensation system in place for members of MTU's Supervisory Board, the amounts paid to individual board members, and other compensation-related details are provided in the *Management compensation report*.

As in the previous year, members of the Supervisory Board did not receive any additional compensation for board appointments over and above that received for their appointment to the Supervisory Board of MTU Aero Engines AG, Munich. The compensation amounted to €2 million (previous year: €2 million).

In fiscal year 2024, MTU employees appointed as employee representatives to the Supervisory Board of MTU Aero Engines AG received salaries under their normal employment contracts (excluding Supervisory Board compensation) totaling €1 million (previous year: €1 million). The total amount represents the sum of their respective gross salaries.

In the reporting period, as in the previous year, no loans or advances were granted to members of the Supervisory Board. Similarly, as in the previous year, no contingent liabilities were assumed by the company in favor of members of the Supervisory Board.

V. Segment information

39. Segment reporting

MTU reports on two operating segments: the OEM segment (commercial and military engine business) and the MRO segment (commercial maintenance business). Segmentation is based on the internal organizational structure and the corresponding management reporting system, which takes into account the different risk and return structures for both segments. A detailed description of the operating segments is provided in the *consolidated segment report*.

Commercial and military engine business (OEM segment)

In the commercial and military engine business, the Group develops, manufactures, assembles and delivers commercial and military engines and components. The maintenance, repair and overhaul of military engines is also included in this segment.

Commercial maintenance business (MRO segment)

In the commercial maintenance business, the Group maintains, repairs and overhauls aircraft engines and industrial gas turbines. In addition to complete engine maintenance, the services provided include engine module and parts repairs as well as related services, such as engine leasing.

Profit/loss of companies accounted for using the equity method

The carrying amount and the share in profit/loss of Group companies accounted for using the equity method are included in the consolidated financial statements if these companies can be directly allocated to an operating segment.

Segment assets and segment liabilities

Segment assets comprise all assets that can be directly allocated to specific operating activities and whose positive or negative operating results have an impact on earnings before interest and tax (EBIT/adjusted EBIT). Assets and liabilities are allocated to the operating segment in which they are used to generate business. To determine segment assets, the carrying amounts of subsidiaries and receivables between the segments were consolidated. Further details are provided in the *consolidated segment report*.

The cash and cash equivalents of the German Group companies are managed centrally by the parent company in a cash pooling system. The parent company's operating activities are allocated to the OEM segment, which is why the associated interest income and expense arise mainly in that segment.

Segment capital expenditures

Segment capital expenditures relate to additions to intangible assets, property plant and equipment, acquired program assets and acquired development work.

Capital expenditure on intangible assets & goodwill, property, plant and equipment, acquired program assets and acquired development work

in € million	2024	2023
Germany	445	374
Europe (excluding Germany)	291	157
North America	102	5
Total capital expenditure	**839**	**536**

Approximately 53% (previous year: approximately 61%) of capital expenditure on intangible assets, property, plant and equipment, acquired program assets and acquired development work relates to Group companies in Germany. The rise in capital expenditure in North America was mainly due to advance payments in connection with the acquisition of further MRO program stakes.

Consolidation / reconciliation column

The amounts in the "consolidation/reconciliation" column for consolidated earnings before interest and tax (EBIT/adjusted EBIT) are used to eliminate the effect of intersegment sales.

Segment information by region

External revenue, capital expenditure on intangible assets, property, plant and equipment and non-current assets are divided into the following regions: Germany, Europe (excluding Germany) and North America. Revenue from business with third parties is allocated according to the country where the customer is domiciled. Further details of the segment breakdown by region is presented in *Note 1. Revenue*.

The regional allocation of capital expenditure and non-current assets is based on the location of the respective asset or where it is mainly used.

Non-current assets

in € million	2024	2023
Germany	3,783	3,531
Europe (excluding Germany)	723	734
North America	459	340
Total non-current assets	**4,965**	**4,604**

VI. Events after the reporting date

On January 23, 2025, the Supervisory Board appointed Katja Garcia Vila as the new Chief Financial Officer. She will succeed Peter Kameritsch on July 1, 2025. Mr. Kameritsch is not available for reappointment after his term in office ends on December 31, 2025.

MTU is not aware of any events of material importance that occurred after the reporting date that could have a significant impact on the net assets, financial position and results of operations of the MTU Group as presented in this report.

VII. Determination of the net profit available for distribution on the basis of the annual financial statements

Unlike the consolidated financial statements, which are based on the IFRSs issued by the IASB and endorsed by the EU, the annual financial statements of MTU Aero Engines AG, Munich, are prepared in accordance with the requirements of the German Commercial Code (HGB) and German Stock Corporation Act (AktG).

Income statement of MTU Aero Engines AG (German Commercial Code [HGB])

			Change against previous year (adjusted)	
in € million	2024	2023	in € million	in %
Revenue	**4,424**	**2,738**	**1,686**	**61.6**
Cost of goods sold	-3,904	-3,283	-621	-18.9
Gross profit	**520**	**-545**	**1,065**	**>100**
Selling expenses	-99	-97	-2	-2.1
General administrative expenses	-63	-58	-5	-8.6
Other operating profit	19	65	-46	-70.8
Net financial income/expense	313	229	84	36.7
Earnings before tax	**690**	**-406**	**1,096**	**>100**
Tax expense	-196	151	-347	<-100
Net profit for the year	**494**	**-255**	**749**	**>100**
Withdrawal from other retained earnings		363	-363	0
Allocation to other retained earnings	-247		-247	
Net profit available for distribution	**247**	**108**	**139**	**>100**

Proposed profit distribution

Subject to the approval of the Supervisory Board, a proposal will be made at the Annual General Meeting to use part of the net profit available for distribution to pay a dividend of €2.20 per eligible share (previous year: €2.00) and to transfer the remaining amount to other retained earnings.

In accordance with Section 58 (4) (2) of the German Stock Corporation Act (AktG) as applicable since January 1, 2017, the claim to payment of the dividend is on the third business day following the resolution passed at the Annual General Meeting – and therefore on May 13, 2025.

Company register

The annual financial statements, consolidated financial statements and combined management report of MTU Aero Engines AG, Munich, are published in the company register. Printed copies can be obtained on request from MTU Aero Engines AG, 80995 Munich, Germany.

Declaration of conformity with the German Corporate Governance Code

The declaration of conformity by the Executive Board and Supervisory Board of MTU Aero Engines AG, Munich, pursuant to Section 161 of the German Stock Corporation Act (AktG) is published in the MTU Annual Report 2024 and has also been made permanently available to shareholders on the MTU website at www.mtu.de.

Munich, March 10, 2025

signed
Lars Wagner
Chief Executive Officer

signed
Peter Kameritsch
Chief Financial Officer and
Chief Information Officer

signed
Dr Silke Maurer
Chief Operating Officer

signed
Michael Schreyögg
Chief Program Officer

Responsibility statement and independent auditor’s report

Responsibility statement

We hereby affirm that, to the best of our knowledge, the consolidated financial statements of the MTU Group and the separate annual financial statements of MTU Aero Engines AG present a true and fair view of their respective net assets, financial position and results of operations in accordance with the applicable financial reporting standards, and that the combined management report provides a faithful and accurate review of the business performance of the MTU Group and of MTU Aero Engines AG, including business performance and position, and outlines the significant opportunities and risks of the MTU Group's and MTU Aero Engines AG's likely future development.

Munich, March 10, 2025

signed
Lars Wagner
Chief Executive Officer

signed
Peter Kameritsch
Chief Financial Officer and
Chief Information Officer

signed
Michael Schreyögg
Chief Program Officer

signed
Dr. Silke Maurer
Chief Operating Officer

Note: This is a translation of the German original. Solely the original text in German language is authoritative.

Independent Auditor's Report

To MTU Aero Engines AG, Munich

Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report

Opinions

We have audited the consolidated financial statements of MTU Aero Engines AG, Munich and its subsidiaries (the Group), which comprise the consolidated balance sheet as at December 31, 2024, and the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated cash flow statement for the financial year from January 1 to December 31, 2024, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report of MTU Aero Engines AG and the Group for the financial year from January 1 to December 31, 2024.

In accordance with German legal requirements we have not audited the content of those components of the combined management report specified in the "Other Information" section of our auditor's report.

The combined management report includes cross-references that are not provided for by law and are marked as unaudited. We have not audited these cross-references in terms of content or the information to which the cross-references refer in accordance with German statutory provisions.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at December 31, 2024, and of its financial performance for the financial year from January 1 to December 31, 2024, and
- the accompanying combined management report as a whole provides an appropriate view of the Group's position. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the combined management report does not cover the content of those components of the combined management report specified in the "Other Information" section of the auditor´s report. The combined management report includes cross-references, marked as unaudited, that are not provided for by law. Our audit opinion does not cover these cross-references or the information they refer to.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the combined management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with Section 317 HGB and the EU Audit Regulation No. 537/2014 (referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the combined management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1 to December 31, 2024. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

The amount of revenue from commercial engine business in the OEM segment and the measurement of refund liabilities.

Please refer to section I of the notes to the consolidated financial statements for the accounting principles applied.

Information on the amount of revenue from commercial engine business in the OEM segment and reimbursement liabilities in general can be found in the notes to the consolidated financial statements under II. 1 and III. 31.

RISKS FOR THE FINANCIAL STATEMENTS

Revenue generated in the commercial engine business in the Group's OEM segment amounted to EUR 1.855 million in the 2024 financial year (previous year: EUR 583 million). These revenues are generated as part of program partnerships, so-called risk- and revenue-sharing partnerships, with other engine manufacturers. These program partnerships are controlled by other companies (consortium leaders). The main performance obligations relate in particular to the production, assembly and delivery of engine parts and the provision of technology.

In accordance with IFRS 15, the consortium leaders or, in individual cases, specific consortium companies were identified as customers. The basis for the amount of revenue recognized for deliveries and services by the Group is a list price fixed in the consortium agreement. By participating in risk and revenue sharing partnerships, all income and expenses of the program are also allocated to the program participants on a pro rata basis. These constitute variable consideration for the performance obligations or payments to the customer and therefore increase or decrease the amount of revenue. As a rule, they are only finally determined at a later date when the consortium leader delivers the product to its end customers or fulfills the other obligations arising from the contracts with the end customers.

A refund liability within the meaning of IFRS 15 is recognized if the company receives consideration from a customer and expects to refund all or part of this consideration to the customer. A refund liability is measured in the amount of the consideration received that is not expected to be due to the company as at the reporting date. This relates to the above-mentioned variable consideration and payments to the customer. The revenue-reducing accrual is recognized in the refund liabilities, which amounted to EUR 3,305 million as at the reporting date, corresponding to 26.5 % of total assets. The Executive Board's estimates for the amount of variable consideration and payments to customers are complex and discretionary. They are essentially based on the customers' program reports, which are assessed by the Executive Board and adjusted if there are deviating estimates.

There is a risk for the consolidated financial statements that the amount of variable consideration and payments to customers may be inaccurately estimated and thus the sales revenue and the refund liability may be incorrectly calculated or measured.

OUR AUDIT APPROACH

For the audit of revenue recognition, we assessed the design, implementation and effectiveness of selected internal controls with regard to revenue recognition. In addition, we assessed the accounting policy for revenue recognition in the commercial engine business in the OEM segment for compliance with IFRS 15.

On the basis of representatively selected samples, we verified the preliminary revenue recognition upon delivery to the customer by inspecting delivery bills and other underlying documentation. In doing so, we compared the underlying prices with the price lists of the program partnerships.

In addition, we reconciled a representative sample of variable consideration and payments to the customer with the program reports and assessed the valuation methods and significant assumptions and data used in the estimate. We also verified the mathematical accuracy of the calculation. We discussed and evaluated the underlying contracts, agreements and correspondence with the program partners as well as other relevant documentation with the responsible parties. Furthermore, we assessed the quality of the estimates to date by comparing the originally estimated values for variable consideration and payments to the customer with the program reports received.

OUR CONCLUSIONS

The company's approach to recognizing revenue is appropriate. The assumptions and data used to estimate the variable consideration and payments to the customer and therefore the measurement of the refund liability are appropriate.

The recoverability of program assets and program-related capitalized development costs

Please refer to section I of the notes to the consolidated financial statements for information on the accounting policies applied and the assumptions made.

Information on the amount of program assets and capitalized development costs can be found in the notes to the consolidated financial statements under III. 13, 14 and 17.

RISKS FOR THE FINANCIAL STATEMENTS

The Group participates in risk- and revenue-sharing partnerships with other engine manufacturers. Program entry payments and pro rata cost absorptions are made to enter into these partnerships in the commercial OEM segment. These program-lifetime-related payments to customers are capitalized as "Acquired program assets, development work and other assets" under non-current assets in the consolidated financial statements. In addition, self-financed development services are provided, which are capitalized as development services and reported under "Intangible assets & goodwill".

The aforementioned assets amounted to EUR 1,278 million as at December 31, 2024 and represent a significant proportion of assets at 10.2 % of total assets.

At each reporting date, the company uses a multi-stage process to analyze at the level of the programs identified as cash-generating units whether the acquired program assets, development work and other assets as well as internally generated development assets could be impaired. To test for impairment, the company determines the recoverable amount of the program if certain indicators are present and compares this with the respective carrying amount. A discounted cash flow method is used to determine the recoverable amount.

The impairment test of the acquired program assets, development work and other assets as well as internally generated development assets is complex and is based on a number of discretionary assumptions. These include, in particular, the expected business and earnings development of the programs for the expected remaining program life and the discount rate used, which was derived with the help of an external valuation specialist.

There is a risk for the consolidated financial statements that an existing impairment was not recognized.

OUR AUDIT APPROACH

To test the recoverability of the acquired program assets, development and other assets as well as internally generated development services, we examined the company's planning process and the associated internal controls.

As part of a risk-oriented selection of acquired program assets, development work and other assets and internally generated development assets, we assessed the appropriateness of the key assumptions, in particular the revenue forecast for the engine programs and the associated costs, as well as the company's calculation method. For this purpose, we discussed the expected business and earnings development of the programs with those responsible for planning. We also performed reconciliations with the budget prepared by the Executive Board and approved by the Supervisory Board. In addition, we assessed the consistency of the assumptions with external market estimates.

In addition, we satisfied ourselves as to the accuracy of the Company's forecasts to date by comparing the planning of the corresponding programs from previous financial years with the actual results realized and analyzing deviations for program values selected on a risk-oriented basis and program-related capitalized development costs. With the involvement of our valuation specialists, we compared the assumptions and data underlying the discount rate, in particular the risk-free interest rate, the market risk premium and the beta factor, with our own assumptions and publicly available data. In addition, we assessed the competence, capabilities and objectivity of the external valuation specialist engaged by MTU.

In order to assess the methodologically and mathematically appropriate implementation of the valuation method, we verified the valuation of the programs performed by the company using our own calculations and analyzed deviations.

In order to take account of the existing forecast uncertainty, we have examined the effects of possible changes on the recoverable amount by calculating alternative scenarios and comparing them with the company's figures (sensitivity analysis).

OUR CONCLUSIONS

The calculation method underlying the impairment test of the acquired program assets, development costs and other assets as well as internally generated development assets is appropriate and in line with the applicable valuation principles. The company's assumptions and data on which the valuation is based are appropriate.

Other Information

Management respectively supervisory board are responsible for the other information. The other information comprises the following components of the combined management report, whose content was not audited:

- the sustainability report, which includes the combined non-financial statement of the Company and the Group, which is contained in the section "Non-financial statement" of the combined management report, and
- the combined corporate governance statement of the company and the group included in section "Corporate governance statement" of the combined management report.

The other Information includes also the remaining parts of the annual report. The other Information does not include the consolidated financial statements, the combined management report information audited for content and our auditor's report thereon.

Our opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the above-mentioned other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the combined management report information audited for content or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Combined Management Report

Management is responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, management is responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, management is responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) [and supplementary compliance with the ISAs] will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.

- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by management in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the actions taken or safeguards applied to eliminate independence threats.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Combined Management Report Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB

We have performed assurance work in accordance with Section 317 (3a) HGB to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in the electronic file „MTUKA-2024-12-31-de.zip" (SHA256 hash value: 4ad4b052681b57fea30c06afa3ef4abb-8cae66a4e2157aad85e221dfda13a3e3) made available and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained in these renderings nor to any other information contained in the file identified above.

In our opinion, the rendering of the consolidated financial statements and the group management report contained in the electronic file made available, identified above and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management report for the financial year from January 1 to December 31, 2024 contained in the "Report on the Audit of the Consolidated Financial Statements and the Group Management Report" above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the file identified above.

We conducted our assurance work on the rendering of the consolidated financial statements and the group management report contained in the file made available and identified above in accordance with Section 317 (3a) HGB and the IDW Assurance Standard: Assurance Work on the Electronic Rendering of Financial Statements and Management Reports Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB (IDW AsS 410 (06.2022)). Our responsibility in accordance therewith is further described below. Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QMS 1 (09.2022)).

The Company's management is responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the group management report in accordance with Section 328 (1) sentence 4 item 1 HGB and for the tagging of the consolidated financial statements in accordance with Section 328 (1) sentence 4 item 2 HGB.

In addition, the company's management is responsible for such internal control that they have considered necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB for the electronic reporting format.

The supervisory board is responsible for overseeing the process of preparing the ESEF documents as part of the financial reporting process.

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. We exercise professional judgement and maintain professional scepticism throughout the assurance work. We also:

/ Identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.

/ Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.

/ Evaluate the technical validity of the ESEF documents, i.e. whether the file made available containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815, as amended as at the reporting date, on the technical specification for this electronic file.

/ Evaluate whether the ESEF documents provide an XHTML rendering with content equivalent to the audited consolidated financial statements and the audited group management report.

/ Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Delegated Regulation (EU) 2019/815, as amended as at the reporting date, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as auditor by the annual general meeting on May 8, 2024. We were engaged by the supervisory board on November 20, 2024. We have been the auditor of the MTU Aero Engines AG without interruption since the financial year 2023.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

Other matter – Use of the Auditor's Report

Our auditor's report must always be read together with the audited consolidated financial statements and the audited group management report as well as the examined ESEF documents. The consolidated financial statements and group management report converted to the ESEF format – including the versions to be entered in the company register – are merely electronic renderings of the audited consolidated financial statements and the audited group management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the examined ESEF documents made available in electronic form.

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Johannes Hanshen.

Munich, March 18, 2025

KPMG AG
Wirtschaftsprüfungsgesellschaft
Original German version signed by:

Huber-Straßer	Hanshen
Wirtschaftsprüfer	Wirtschaftsprüfer
German Public Auditor	German Public Auditor

Assurance report of the independent German Public Auditor on a limited assurance engagement in relation to the Consolidated Sustainability Statement[1]

To MTU Aero Engines AG, Munich

Assurance Conclusion

We have conducted a limited assurance engagement on the Consolidated Sustainability Statement, included in section Consolidated Sustainability Statement of the combined management report, of MTU Aero Engines AG, Munich (hereinafter "Company" or "MTU Aero Engines") for the financial year from 1 January to 31 December 2024. The Consolidated Sustainability Statement was prepared to fulfil the requirements of Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 (Corporate Sustainability Reporting Directive, CSRD) and Article 8 of Regulation (EU) 2020/852 as well as Sections 315b and 315c of the HGB [Handelsgesetzbuch: German Commercial Code] for a consolidated non-financial statement and Sections 289b to 289e of the HGB for a non-financial statement of the company.

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the accompanying Consolidated Sustainability Statement is not prepared, in all material respects, in accordance with the requirements of the CSRD and Article 8 of Regulation (EU) 2020/852, Sections 315b and 315c HGB for a consolidated non-financial statement, Sections 289b to 289e of the HGB for a non-financial statement of the company and the supplementary criteria presented by the executive directors of the Company. This assurance conclusion includes that nothing has come to our attention that causes us to believe that:

- the accompanying Consolidated Sustainability Statement does not comply, in all material respects, with the European Sustainability Reporting Standards (ESRS), including that the process carried out by the entity to identify information to be included in the Consolidated Sustainability Statement (the materiality assessment) is not, in all material respects, in accordance with the description set out in section "Description of the processes to identify and assess material impacts, risks and opportunities (IRO-1)" of the Consolidated Sustainability Statement, or
- the disclosures in section "Disclosures pursuant to Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation)" of the Consolidated Sustainability Statement do not comply, in all material respects, with Article 8 of Regulation (EU) 2020/852.

Basis for the Assurance Conclusion

We conducted our assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements Other Than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board (IAASB).

The procedures in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Our responsibilities under ISAE 3000 (Revised) are further described in the section "German Public Auditor's Responsibilities for the Assurance Engagement on the Consolidated Sustainability Statement".

We are independent of the entity in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. Our audit firm has applied the requirements for a system of quality control as set forth in the IDW Quality Management Standard issued by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW): Requirements for Quality Management in the Audit Firm (IDW QMS 1 (09.2022)) and International Standard on Quality Management (ISQM) 1 issued by the IAASB. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our assurance conclusion.

[1] Our engagement applied to the German version of the Consolidated Sustainability Statement. This text is a translation of the Assurance report of the independent German Public Auditor issued in the German language, whereas the German text is authoritative.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Sustainability Statement

The executive directors are responsible for the preparation of the Consolidated Sustainability Statement in accordance with the requirements of the CSRD and the applicable German legal and other European requirements as well as with the supplementary criteria presented by the executive directors of the Company and for designing, implementing and maintaining such internal control that they have considered necessary to enable the preparation of a Consolidated Sustainability Statement in accordance with these requirements that is free from material misstatement, whether due to fraud (i.e., fraudulent sustainability reporting in the Consolidated Sustainability Statement) or error.

This responsibility of the executive directors includes establishing and maintaining the materiality assessment process, selecting and applying appropriate reporting policies for preparing the Consolidated Sustainability Statement, as well as making assumptions and estimates and ascertaining forward-looking information for individual sustainability-related disclosures.

The Supervisory Board is responsible for overseeing the process for the preparation of the Consolidated Sustainability Statement.

Inherent Limitations in Preparing the Consolidated Sustainability Statement

The CSRD and the applicable German legal and other European requirements contain wording and terms that are subject to considerable interpretation uncertainties and for which no authoritative, comprehensive interpretations have yet been published. As such wording and terms may be interpreted differently by regulators or courts, the legality of measurements or evaluations of sustainability matters based on these interpretations is uncertain. As further set forth in particular in section "Value chain estimation", "Resource outflows (E5-5)" and the MDR-M disclosures on "E1-5 Energy consumption and energy mix" of the Consolidated Sustainability Statement, the quantification of the non-financial performance indicators is also subject to inherent uncertainties due to estimations and measurement inaccuracies.

These inherent limitations also affect the assurance engagement on the Consolidated Sustainability Statement.

German Public Auditor's Responsibilities for the Assurance Engagement on the Consolidated Sustainability Statement

Our objective is to express a limited assurance conclusion, based on the assurance engagement we have conducted, on whether any matters have come to our attention that cause us to believe that the Consolidated Sustainability Statement has not been prepared, in all material respects, in accordance with the CSRD, the applicable German legal and other European requirements and the supplementary criteria presented by the company's executive directors, and to issue an assurance report that includes our assurance conclusion on the Consolidated Sustainability Statement.

As part of a limited assurance engagement in accordance with ISAE 3000 (Revised), we exercise professional judgment and maintain professional skepticism. We also:

- obtain an understanding of the process used to prepare the Consolidated Sustainability Statement, including the materiality assessment process carried out by the entity to identify the disclosures to be reported in the Consolidated Sustainability Statement.
- identify disclosures where a material misstatement due to fraud or error is likely to arise, design and perform procedures to address these disclosures and obtain limited assurance to support the assurance conclusion. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control. In addition, the risk of not detecting a material misstatement in information obtained from sources not within the entity's control (value chain information) is ordinarily higher than the risk of not detecting a material misstatement in information obtained from sources within the entity's control, as both the entity's executive directors and we as practitioners are ordinarily subject to restrictions on direct access to the sources of the value chain information.
- consider the forward-looking information, including the appropriateness of the underlying assumptions. There is a substantial unavoidable risk that future events will differ materially from the forward-looking information.

Summary of the Procedures Performed by the German Public Auditor

A limited assurance engagement involves the performance of procedures to obtain evidence about the sustainability information. The nature, timing and extent of the selected procedures are subject to our professional judgment.

In performing our limited assurance engagement, we among other things:

- evaluated the suitability of the criteria as a whole presented by the executive directors in the Consolidated Sustainability Statement
- inquired of the executive directors and relevant employees involved in the preparation of the Consolidated Sustainability Statement about the preparation process, including the materiality assessment process carried out by the entity to identify the disclosures to be reported in the Consolidated Sustainability Statement, and about the internal controls relating to this process
- evaluated the reporting policies used by the executive directors to prepare the Consolidated Sustainability Statement
- evaluated the reasonableness of the estimates and related information provided by the executive directors. If, in accordance with the ESRS, the executive directors estimate the value chain information to be reported for a case in which the executive directors are unable to obtain the information from the value chain despite making reasonable efforts, our assurance engagement is limited to evaluating whether the executive directors have undertaken these estimates in accordance with the ESRS and assessing the reasonableness of these estimates, but does not include identifying information in the value chain that the executive directors were unable to obtain
- performed analytical procedures and made inquiries in relation to selected information in the Consolidated Sustainability Statement
- conducted site visits at selected sites
- considered the presentation of the information in the Consolidated Sustainability Statement
- considered the process for identifying taxonomy-eligible and taxonomy-aligned economic activities and the corresponding disclosures in the Consolidated Sustainability Statement.

Restriction of Use / Clause on General Engagement Term

This assurance report is solely addressed to MTU Aero Engines AG Munich.

The engagement, in the performance of which we have provided the services described above on behalf of MTU Aero Engines AG, was carried out on the basis of the General Engagement Terms for Wirtschaftsprüferinnen, Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften (Allgemeine Auftragsbedingungen für Wirtschaftsprüferinnen, Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) dated as of January 1, 2024 (www.kpmg.de/AAB 2024). By taking note of and using the information as contained in our report, each recipient confirms to have taken note of the terms and conditions stipulated in the aforementioned General Engagement Terms (including the liability limitations specified in item No. 9 included therein) and acknowledges their validity in relation to us.

Munich, 18 March 2025

KPMG AG
Wirtschaftsprüfungsgesellschaft
[Original German version signed by:]

Johannes Hanshen	Stephanie Vogl
Wirtschaftsprüferin	Wirtschaftsprüferin
[German Public Auditor]	[German Public Auditor]

Additional information

Glossary of engine terms

Claire technology agenda
Clean Air Engine (Claire) is MTU's technology agenda. It formulates possible solutions and potential for sustainable commercial engines as part of the shift to emission-free flying. The aim of these endeavors is to reduce the climate impact, in other words, CO_2 and NOX emissions and condensation trails. Reducing energy consumption is also important. The focus is on evolutionary development of gas turbine technology based on the Geared Turbofan and completely new, revolutionary propulsion concepts. Sustainable aviation fuels (SAFs) and hydrogen play a key role.

Compressor
The task of the compressor is to ingest air and compress it before it is fed into the combustor. Compressors consist of bladed disks (rotors) that rotate at very high speed between stationary guide vanes (stators). In order to achieve a compression ratio of over 40:1, which is standard in all modern two-shaft engines, it is necessary to use multi-stage low-pressure and high-pressure compressors rotating at different speeds on dual concentric shafts. These are driven by the corresponding turbines.

Fan
The first rotor of the low-pressure compressor is called the fan. It accelerates the bypass stream flowing aftward and provides the engine's main thrust. It is driven by the low-pressure turbine via the low-pressure shaft.

Flying Fuel Cell™
Revolutionary new propulsion concepts are needed to meet the ambitious targets of the Paris Agreement on Climate Change. MTU is driving forward a revolutionary concept of this type for the fullest possible electrification of the powertrain. The company considers that converting liquid hydrogen into water with the aid of a fuel cell has the greatest potential. This concept is known as the Flying Fuel Cell™ or FFC for short. The FFC would initially be used for short regional flights. It has the potential to reduce climate impact by 95 percent to almost zero, making it almost emission-free. The only emission is water. Improved efficiency should also allow the FFC to be used on short- and medium-haul flights from 2050, which would further reduce the climate impact of commercial aviation.

Geared Turbofan™
What sets the Geared Turbofan™ propulsion system apart is that it features a reduction gearbox between the fan and low-pressure shaft on which the low-pressure compressor and low-pressure turbine that drives the fan are seated. The gearbox allows the fan with its large diameter to rotate more slowly and, at the same time, the low-pressure compressor and turbine to rotate much faster. This enables lower fan pressure ratios and therefore higher bypass ratios to be achieved so the individual components can operate at their respective optimum speeds. As a result, the efficiency of the Geared Turbofan is greatly boosted. Therefore, fuel consumption as well as carbon dioxide and noise emissions are significantly reduced. The propulsion system is moreover lighter than a conventional engine owing to the reduced compressor and turbine stage count. In addition, the maintenance costs are lower.

Industrial gas turbines
The operating principle of an industrial gas turbine is essentially the same as that of an aero engine. However, instead of the customary low-pressure turbine used in aircraft, industrial gas turbines have a power turbine. This turbine delivers the power, either directly or via a gear unit, to an additional attached power unit such as a pump or generator. Nearly all industrial gas turbines of the lower and intermediate power classes are aero-engine derivatives.

MRO business
MRO stands for maintenance, repair and overhaul. At MTU, the term "MRO business" is also used more specifically to designate one of the company's operating segments, where it refers to maintenance services for commercial engines, or commercial MRO.

OEM business
OEM stands for original equipment manufacturer. At MTU, the term "OEM business" is used to designate one of the company's operating segments, where it refers to the development, manufacture and assembly of (new) commercial and military engines. Spare parts for (in-service) commercial and military engines and maintenance services for military engines are also included in this operating segment.

Risk- and revenue-sharing partnership
In a risk- and revenue-sharing partnership, each partner contributes a certain share of the resources needed for a specific engine program (work capacity and funding), thus bearing part of the risk. In return, each partner is entitled to a corresponding percentage of the overall sales revenue from that program.

Subsystem
A complete aircraft engine is made up of a number of subsystems. These include the high-pressure and low-pressure compressors, the combustor, the high-pressure and low-pressure turbines and the engine control system.

Thrust class
Jet engines are generally grouped into three thrust classes: engines with a thrust of between 2,500 and around 20,000 pounds (roughly 10 to 90 kN), mainly used to power business and regional jets; engines with a thrust of between 20,000 and approximately 50,000 pounds (roughly 90 to 225 kN), used to power medium-haul aircraft; and engines with a thrust ranging from 50,000 to over 100,000 pounds (roughly 225 to 450 kN), used to power long-haul aircraft.

Turbine
In a turbine, the energy contained in the gases emerging from the combustor is converted into mechanical energy. Like the compressor, the turbine is subdivided into a high-pressure and a low-pressure section, each of which is directly connected to the corresponding compressor via the respective shaft. The turbine has to withstand much higher stresses than the compressor, as it has to deal not only with the high gas temperatures but also with extreme centrifugal forces of several tons acting on the outer rim of its disks.

Turbine center frame
The turbine center frame connects the high-pressure to the low-pressure turbine. It has to be able to withstand high mechanical and thermal loads. The center frame includes struts, clad with an aerodynamic fairing, to support the shaft bearings and the air and oil supply lines.

Turbofan engine
The turbofan is an advancement of the turbojet principle, the main difference being its enlarged first compressor stage, the fan. While in turbojet engines all of the ingested air flows consecutively through the compressor, the combustor and the turbine, turbofans separate the air stream behind the fan. Part of the air flows through further compressor stages to the combustor and then the turbine, flowing through the core engine. The rest, however – which constitutes a much larger fraction – is channeled around the inner components, providing the engine's main thrust. The ratio between these two airflows is known as the bypass ratio. The greater the bypass ratio, the more economical, environmentally compatible and silent the engine.

Turboprop engine
The most noticeable external feature of a turboprop is its propeller. Inside, however, the engine differs only slightly from the turbojet and the turbofan. The turbine is larger and drives not only the compressor but also the propeller, the latter via a gear unit. Consequently, more energy has to be drawn from the exhaust gas stream in the turbine of a turboprop than in other engine types. Over 90% of the energy is required for the compressor and the propeller. Turboprop airplanes can achieve flight speeds of up to 800 km/h. They are thus slower than turbojet or turbofan airplanes, but they do have the advantage of consuming far less fuel. This predestines them for use in roles where speed is less important, such as on short-haul routes or for air freight.

Turboshaft engine
Turboshaft engines are used in helicopters and are similar to turboprops.

Overview of engines

Commercial Engines

Development/ Manufacturing	Widebody jets	Narrowbody / regional jets	Business jets
	CF6	JT8D-200	PW300
	GE9X	GTF™ engine family	PW500
	GEnx	PW2000	PW800
	GP7000	V2500	
	PW4000		

Maintenance	Widebody jets	Narrowbody / regional jets	Business jets
	CF6-80C[1]	CF34-8/-10E	PW300
	GE90-110B/-115B	CFM56-5B/-7B	PW500
	GE9X – TCF MRO (planned)	GTF™ engine family (PW1100G-JM, PW1500G/1900G)	PW800
	GEnx – TCF MRO	LEAP-1A/-1B	
	GP7000 – LPT MRO	PW2000	
		V2500-A5[1]	
	Helicopters		
	PW200		

Military Engines

Development/ Manufacturing	Fighter jets	Helicopters	Transporters
	EJ200	MTR390	TP400-D6
	F110	T408	
	F414	T64	
	Larzac 04		
	RB199		

Maintenance[2]	Fighter jets	Helicopters	Transporters
		T64	TP400-D6

Maintenance within the scope of the cooperation with Germany's armed forces	Fighter jets	Helicopters	Transporters
	EJ200	MTR390	
	RB199		

[1] incl. military applications: F108, F138 and V2500-E5.
[2] Maintenance conducted by MTU Aero Engines.
LPT = low-pressure turbine, TCF = turbine center frame.

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Financial calendar

May 6, 2025	Quarterly Statement as of March 31, 2025
	Conference calls with journalists, analysts and investors
May 8, 2025	Annual General Meeting
July 24, 2025	Interim report as of June 30, 2025
	Conference calls with journalists, analysts and investors
October 23, 2025	Quarterly Statement as of September 30, 2025
	Conference calls with journalists, analysts and investors

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Translation. The German version takes precedence.

The annual report follows the rules for the use of inclusive language at MTU.

This annual report of MTU Aero Engines AG is also available in German. It can be found as a PDF in German and English on the MTU website.

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