

# Annual Report 2023

January 1 to December 31, 2023





**PVA TePla continues  
profitable growth**

Revenue rises to

EUR **263.4 million** (+ 28 %)

EBITDA margin of

**15.8 %** (+ 1.2 pp)

Employees (annual average)

**730** (+ 19.1 %)

CO<sub>2</sub> emissions,

Scope 1 + 2

(market based) **2,479 t** (– 25.4 %)

# Megatrends

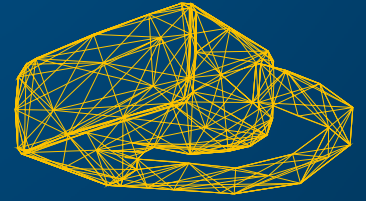
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## PVA TePla drives progress

Almost everyone has come into contact with PVA TePla without even knowing it. From mobile phones to solar parks, components made with the Group's systems can be found in countless products that are part of our everyday lives. And this range is growing all the time. PVA TePla technologies are also at the forefront of megatrends such as decarbonisation, mobility and digitization.

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## Digitization



### The basis for premium semiconductors

Digitization has been a consistent megatrend for the past 40 years or so. Rapid technological progress and an ever-increasing number of applications require more and better semiconductors. PVA TePla semiconductor solutions are in demand along the entire production chain - to grow silicon crystals for wafers, to inspect wafers for impurities or to inspect microchips and localize defects before further processing.

## Decarbonization



### Focus on climate targets

The fight against climate change through the reduction of carbon dioxide emissions to zero is one of the greatest challenges facing business and society today. This makes decarbonisation a long-term issue for many industries. The energy sector is no exception. Highly innovative solutions for the generation, storage and conversion of green energy are part of PVA TePla's portfolio.

## Mobility



### For sustainable mobility

One of the short- to medium-term goals in our globalized world is to make the transportation of people and goods as efficient and sustainable as possible. With its highly specialized technologies, PVA TePla is an enabler of modern mobility solutions. These range from the production of advanced materials such as silicon carbide to quality assurance.

# PVA TePla is everywhere

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## Computers

Crystals are used to make wafers from which semiconductors for computing and other digital applications are sliced. Our crystal growing systems are primarily used to grow silicon crystals for applications such as memory and processor chips.

## Smartphones

Chip stacks, in which several chips are arranged vertically to save space, are found in many small portable electronic devices such as smartphones. The ultra-thin wafers required for this are inspected using a fully automated ultrasound scanning process from PVA TePla.

## 5G

Silicon carbide crystals are the source material for high-performance semiconductor components used in applications such as 5G base stations.

## Augmented Reality

Applications such as augmented reality, with their diverse data sources, require the highest-quality materials for seamless data processing – including the wafers that are the starting point for semiconductor manufacturing. With our scanning infrared depolarisation system, we can detect impurities and remove defective wafers early in the process.

## Internet of Things

Applications with highly interconnected systems and processes are also in need of durable, high-performance semiconductor components. A prerequisite for this is the early detection of contamination on wafers, such as tiny metal particles. With the vapor phase decomposition systems from PVA TePla, such particles can be detected and analyzed.

## Digitization

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### The leading edge

As an result of intensive research and development, PVA TePla continues to raise the bar in metrology systems in terms of analysis accuracy, automation level and inspection speed.



# PVA TePla is everywhere

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## Energy storage

PVA TePla is building a reactor for a customer to manufacture a patented raw material for use in high-efficiency electricity storage systems. These energy storage systems offer numerous benefits for the automotive, energy and other industries.

## Hydrogen technology

Producing green hydrogen requires an electrolysis plant. Our joining technologies are used to manufacture top-quality components for this process.

## Wind energy

At the request of a customer, we developed a system for the production of special safety switches for applications such as wind turbines. The use of sulphur hexafluoride (SF<sub>6</sub>), an extremely harmful greenhouse gas, is avoided by using a vacuum-based solution.

## Heating technology

As a sustainable alternative to oil and gas heating, heat pumps are in high demand. PVA TePla technologies are used to make components for the heat exchangers that form the basis for these sought-after heating solutions.

## Photovoltaics

Our ultrasound scanning microscopes can be used for the non-destructive inspection of products such as the photovoltaic panels that are used in solar power plants. They provide an invaluable contribution to the quality assurance of solar modules.

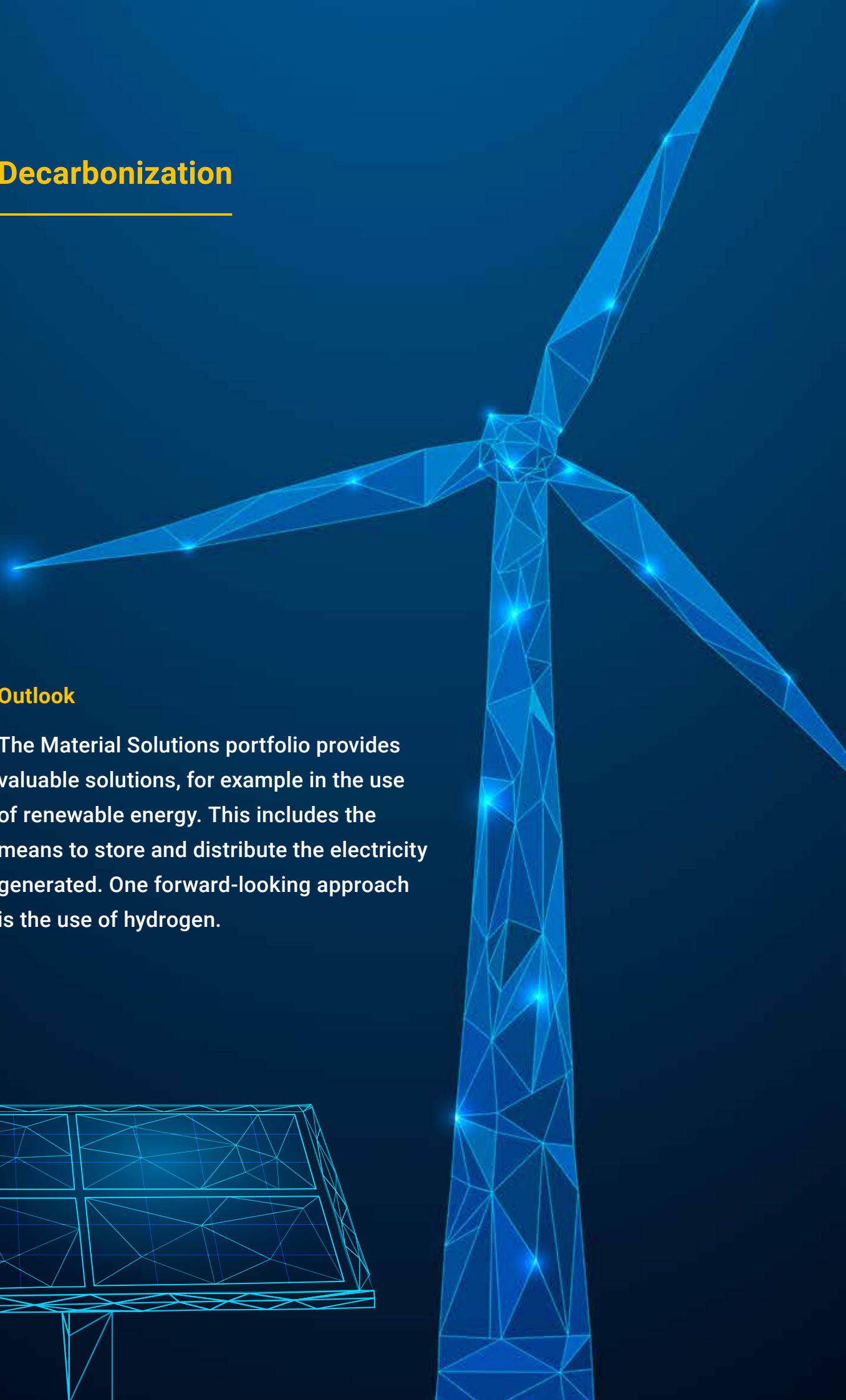
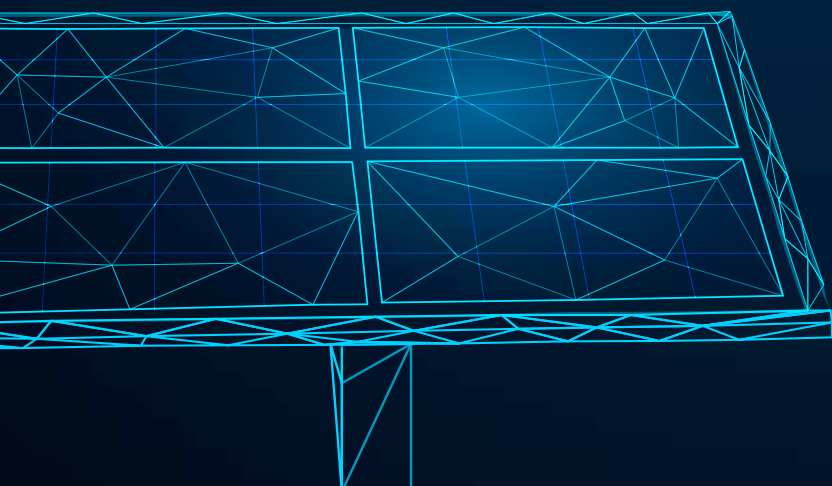


# Decarbonization

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## Outlook

The Material Solutions portfolio provides valuable solutions, for example in the use of renewable energy. This includes the means to store and distribute the electricity generated. One forward-looking approach is the use of hydrogen.



# PVA TePla is everywhere

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## E-mobility

Our multi-channel ultrasound scanner system can record and monitor multiple parameters simultaneously as part of the inspection process for example for high performance components, increasing inspection speed significantly. Manufacturers of electric vehicles and their suppliers are just some of the companies that will benefit from this fast and comprehensive inspection system.

Specifically, electric vehicles use silicon carbide semiconductors grown with PVA TePla technology. Fast charging systems are a major application for these semiconductors.

## Automobiles

The tiniest defect in an LED can affect the quality of an entire lamp. PVA TePla ultrasound scanning microscopes reliably detect defects in products such as LEDs for laser headlights, thus ensuring a long service life.

## Rail transport

Silicon carbide is an important material used in high-performance electronics. We also develop inspection and test technology for quality control of the related modules. These efficiently convert between direct and alternating current. Applications for this technology include trains, where it contributes to considerably reducing energy consumption.

## Aviation

PVA TePla's portfolio also includes systems for coating and manufacturing ceramic matrix composites. These innovative materials are used in aviation, including in the development of engines for efficient, fuel-saving aircraft.

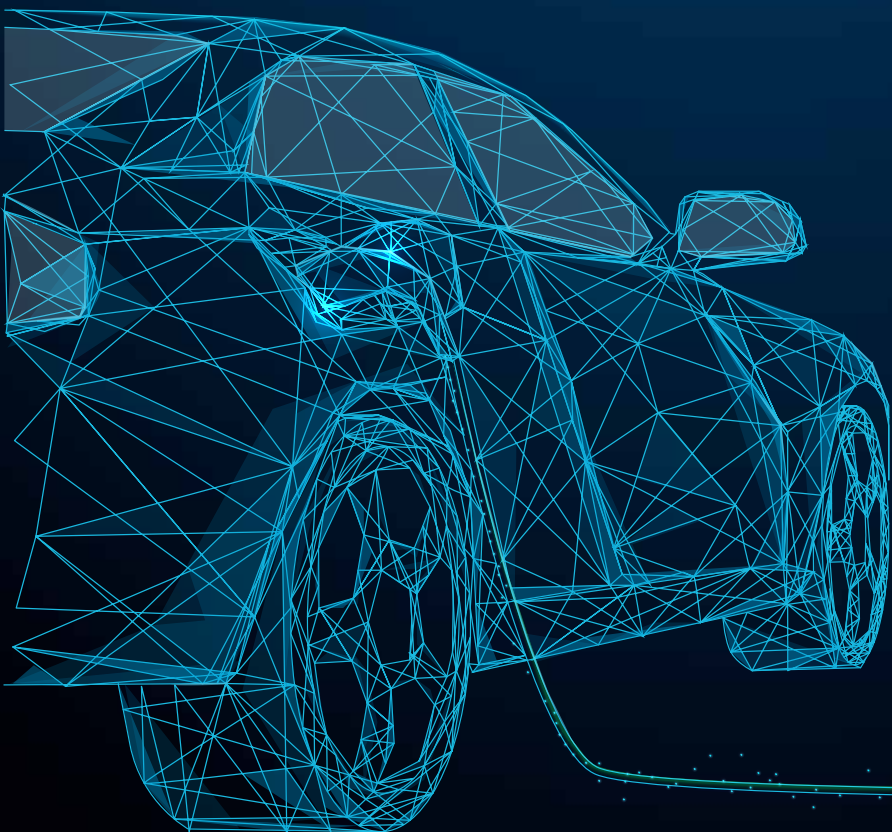
## Mobility

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### Next generation

In our recently launched Technology Hub, we are working intensively on technology solutions based on silicon carbide. This advanced material offers numerous advantages in high-performance applications, such as those required for 5G networks and the digitalization of industrial processes.



## The Management Board

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### Jalin Ketter

CEO

- Member of the Management Board since June 2020
- CEO since January 1, 2024



### Oliver Höfer

COO

- Member of the Management Board since December 2013

## The Supervisory Board



### Alexander von Witzleben

Chairman of the Supervisory Board, Erlenbach ZH, Switzerland, Germany

- Member and Chairman of the Supervisory Board of PVA TePla AG since June 2004



### Prof. Dr. Gernot Hebestreit

Supervisory Board, Leverkusen, Germany

- Deputy Chairman of the Supervisory Board of PVA TePla AG since June 2008
- Chairman of the Audit Committee



### Prof. Dr. Markus H. Thoma

Supervisory Board, Schöffengrund, Germany

- Member of the Supervisory Board of PVA TePla AG since June 2014



### Dr. Myriam Jahn

Supervisory Board, Düsseldorf, Germany

- Member of the Supervisory Board of PVA TePla AG since July 2023

## Interview with the Management Board



In conversation with Jalin Ketter and Oliver Höfer

**Looking back on the past year, how would you sum up 2023?**

**Jalin Ketter:** Very positively! As a newly formed management team, we set the course for the sustainable development and long-term growth of our Group in 2023. Over the next few years, we will be focusing on continuing to fine-tune PVATePla's structure. We are tackling this with a fresh management approach. We have set ourselves clear strategic goals to ensure our future viability: building a balanced product portfolio, tapping new regional markets and additional customer target groups, placing greater emphasis on research and development, and giving our organization a more professional look. We have already initiated the first measures in 2023 with the operational support of our management. While initiating these changes, we continued to grow and ended the year on a successful note, of which we are very proud.

**In the short and medium term, which impact will these plans have on PVA TePla's performance?**

**Jalin Ketter:** The steps we are taking now are the springboard to achieving EUR 500 million in sales by 2028. The market potential is there, and megatrends such as decarbonization, mobility and digitization will remain priorities in the long term. Our technologies drive progress in these areas, which is why research and development is a crucial element of what we do. We are firmly focused on our overarching goal of broadening our base beyond the semiconductor market to other key industries. This will not only make our business more resilient to the cyclical nature of the semiconductor industry, but will also enable us to better exploit the potential of our leading technologies.



**Oliver Höfer:** We are in the process of taking the most important steps at the operational level. For example, the construction of additional facilities (e. g., plants and buildings) is already under way and will be continued. Some construction projects were completed in 2023, and other activities are underway or in preparation. We are also working on a service and sales infrastructure that meets the needs of international markets. Take 24/7 support. These are now widely available by default. And you can't compete without it. At the same time, we are setting up appropriate HR structures. This will ensure that we have the necessary local plant engineering staff. It also makes sense from a cost perspective because it allows us to work more with component suppliers and use local infrastructure for our teams to assemble systems in the target country. We have allocated a total of EUR 15 million for growth investments in 2023. And we will double that amount this year.

**What initiatives are you implementing in the near term to attain your growth targets?**

**Oliver Höfer:** We see favorable growth opportunities especially in North America. We are already working on expanding our sales and service activities and adapting to the market conditions in this region with our two companies, PVA TePla America and PVA TePla Okos. For example, we are preparing a showroom to present our products to our North American customers. We also have an extensive presence in the key growth market of Asia where we have established distribution companies in China, South Korea, Taiwan and Singapore to further expand our market position.

**Which international markets do you currently view as promising?**

**Jalin Ketter:** The energy and mobility transition is one of the major challenges of our time. Whether or not we are going to achieve the climate targets set will to a large extent depend on industry. Smart solutions are essential – and PVA TePla is able to contribute here in many ways. For instance, we are devising multiple technologies for use in energy generation, storage and conversion. This ranges from producing future materials and innovative components to the inspection of components with high-precision systems. The mega-trends of decarbonization and mobility not only offer enormous potential for our business, but also provide us with the opportunity to contribute to the solution of global problems. This also helps us to attract the best talents to work for PVA TePla.

**Why do you consider industries working on energy and mobility solutions to offer particular potential?**

**Can you give an example of a research area of particular importance for these sectors?**

**Jalin Ketter:** Our research areas include future materials, which offer great potential for us. One example is silicon carbide, which is suitable for high-tech applications such as fast charge points for electric vehicles or 5G networks. Our newly set up PVA Technology Hub will initially focus on this raw material. That means we will be able to offer our customers numerous new solutions based around silicon carbide in the near future.

**What role will the semiconductor market play for you going forward?**

**Oliver Höfer:** Providing solutions to the semiconductor industry continues to be a core element of our business. Demand in this market will remain strong as digitalization continues. We will continue to benefit from this development and work on innovative technologies for this industry. However, our strategy is to broaden our positioning by focusing on long-term trends and a broader customer base. This will make us less dependent on the semiconductor industry and its fluctuations.

**Where do you see the greatest potential for future growth in your product portfolio?**

**Jalin Ketter:** If we split our product groups into material solutions and metrology solutions, we can see that the metrology sector – which includes our inspection systems – has grown by more than 500 percent since 2015. And experts predict further significant global market growth in this area, with North America as a key driver. Expanding our metrology business beyond the semiconductor industry is therefore one of our top priorities. At the same time, we intend to maintain our strong market position in material solutions. In the medium term, we are aiming to achieve a balanced revenue split between the two technological areas.





**Oliver Höfer:** As we grow, we need to ensure we have the human resources we need. A key element of this is a review of our training programs and recruitment processes. In terms of recruitment, we will be looking more and more internationally. In addition, we are implementing measures for our existing employees, including opportunities for individual development and initiatives to increase overall employee satisfaction. Through these and a number of other HR measures, we aim to position ourselves as an even more attractive employer in the long term.

**Jalin Ketter:** PVA TePla has now reached a size that makes effective strategic planning and the professionalization of our organization at various levels more necessary than ever. In this context, the development of human resources is a critical focus, as the achievement of our desired growth requires an appropriate number of employees. We will strive for greater consistency throughout the Group in order to meet the challenges of the labor market.

**Jalin Ketter:** We continue to monitor the markets and are prepared to explore appropriate acquisitions should the right opportunities arise. However, only companies that meaningfully complement our existing technology portfolio and provide economic benefit will be considered

**Jalin Ketter:** We want to increase our sales to half a billion euros by 2028 while maintaining a high quality of earnings. However, as we still have some development work to do and PVA TePla is also feeling the current economic pressure, we expect growth to be on the moderate side this year and next. Once this phase is over and the implementation of our strategy progresses, we expect to really reap the benefits of our realignment and experience more significant growth from 2026. In particular, we will systematically exploit the considerable potential of the metrology business, expand our North American business and offer solutions that address the most important global megatrends.

**How are you addressing the skills shortage, which is likely to remain a long-term challenge for industry?**

**Let's also take a look at the bigger picture. How likely is an acquisition in the year ahead? And what would an ideal target look like?**

**Weaker economic growth is generally predicted for the current year. What are your expectations for 2024?**

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# Report of the Supervisory Board

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## Dear Shareholders,

The PVA TePla Group again performed very well in the past fiscal year. Despite major geopolitical and economic challenges, consolidated revenue increased by some 28 percent to EUR 263 million, with a 1.1 percentage point improvement in the EBITDA margin to 15.7 percent. This positive performance is also thanks to the corporate strategy launched by the Management Board and supported by the Supervisory Board, which centers on expanding the company's positioning both technologically and geographically. By tapping into new markets in a targeted way – particularly in the growth industries of mobility and decarbonization – PVA TePla is increasingly reducing its dependence on the economic cycles within individual sectors. Advancement of the corporate strategy is underpinned by extensive investments in increasing our capacities as well as in innovation. PVA TePla also made progress in recruiting the new employees essential to supporting the organization's projected medium-term growth. In the reporting period alone, more than 100 new employees joined the company, bringing the total headcount to 761 by the end of the year.

## Cooperation between Supervisory Board and Management Board

In the year under review, the Supervisory Board duly performed its duties in accordance with the law, the articles of association and its rules of procedure. The Management Board and Supervisory Board worked together very constructively in the interests of PVA TePla's successful onward development.

Drawing on its detailed written and oral reports, we monitored and advised the Management Board on the management of the company. In addition, information was regularly exchanged between the Chairman of the Supervisory Board and the Management Board Spokeswoman, who became Chief Executive Officer effective January 1, 2024, as well as the other members of the Supervisory and Management Boards. In this way, the Supervisory Board was at all times kept informed of the projected business strategy, corporate planning (including financial, investment and personnel planning), the company's profitability, sustainability and business performance, as well as the position of the company and the Group. The Supervisory Board was directly involved in all decisions of fundamental importance to the company from an early stage. These were discussed with the Management Board extensively and in depth. Where management decisions or actions required Supervisory Board approval in accordance with the law, the articles of association or its rules of procedure, the members of the Supervisory Board adopted corresponding resolutions following thorough review and deliberation. The members of the Management Board participated in Supervisory Board and committee meetings, but the Supervisory Board also regularly met without the Management Board.

## Topics discussed by the full Supervisory Board

The Supervisory Board held five meetings in person and four virtually in the year under review. All of these meetings were attended by all members of the Supervisory Board.

The in-person meetings included Management Board reporting on the business situation, comprising detailed information on the development of PVA TePla Group's revenue, earnings and human resources, its financial position and net assets, opportunities and risks, and sustainability. Furthermore, we addressed acquisition projects as well as the company's opportunities and risks on an ad hoc basis.

In preparation for these meetings, all Supervisory Board members received detailed reports on the situation of the PVA TePla Group companies along with further information, such as internal control reports and meeting minutes, well in advance. Based on current financial figures, updated forecast reports and development plans (orders, revenue, compe-

tion, market share) and information regarding implementation of the sustainability strategy, the Supervisory Board was able to obtain an adequate picture of the business situation before and during the meetings. Any deviations from the planning in the actual course of business were thoroughly explained and substantiated.

At its virtual Supervisory Board meetings on January 6, 17, 22 and 26, 2023, the Supervisory Board addressed the company's new management structure with regard to the planned departure of the then CEO Manfred Bender, as well as the extension of a consulting agreement. Energy price developments and an energy concept were similarly discussed. Other topics covered were the sales structure, including the structure of the international sales organization, regional revenue distribution and cooperation opportunities.

At the meeting to approve the financial statements held on March 16, 2023, the German GAAP annual financial statements and the consolidated financial statements for fiscal year 2022, as well as the related discussions and resolutions, were the main focus. Additionally, the Supervisory Board discussed the draft agenda for the Annual General Meeting 2023, which was noted and approved. Management Board contracts, changes to the schedule of responsibilities and the rules of procedure for the Management Board were also topics of discussion.

At the Supervisory Board meeting on May 2, 2023, the agenda again included items related to the adjustment of the management organization. The timing of the strategic process and scenarios for the company's ongoing development were likewise discussed. Moreover, a peer group comparison was considered from a capital market perspective.

Matters discussed at the Supervisory Board meeting on June 28, 2023 included a strategy update on the focus of M&A activities. A PV systems budget was also adopted. Other topics encompassed financial reporting, approval of the schedule of responsibilities and the further steps for a silicon carbide development project.

At its meeting on September 21, 2023, the Supervisory Board addressed the corporate strategy and succession planning for the Supervisory Board. The deliberations also covered the market potential of MPA Industries, which was acquired the year before, commission based on business activity, the list of potential M&A targets as well as the regional distribution of the product portfolio.

The main focal points of the meeting held on October 27, 2023 were the budget for fiscal year 2024 and a strategy update. Other topics included the investment decision in relation to silicon carbide (resolution to establish the Technology Hub), the tender for the audit and the five-year strategy for the material solutions and metrology solutions product areas. Moreover, an analysis of the shareholder structure was presented.

A number of individual Supervisory Board decisions with regard to Management Board-related matters were passed by circular resolution.

### **Work of the Supervisory Board committees**

The Audit Committee prepares resolutions and topics to be addressed by the full Supervisory Board. In the year under review, a total of seven meetings were held, two in person, four in virtual form and one in hybrid format. All committee members attended all meetings either in person or virtually. At its meetings, the Audit Committee discussed the areas of compliance, internal audit, the internal control system (including its suitability and effectiveness) and financial reporting, as well as the focal areas of the audit, the German GAAP annual financial statements and the consolidated financial statements. As part of its supervisory duties, the Audit Committee also deliberated on the auditor's expanded audit report, notably the key audit matters.

## Corporate governance and declaration of conformity

The Management Board and Supervisory Board discussed the declaration of conformity with the German Corporate Governance Code in accordance with section 161 of the German Stock Corporation Act (AktG) and passed a resolution by circulation in March 2024. Following its adoption, the declaration of conformity was made permanently available to shareholders on the company website at <https://www.pvatepla.com/investor-relations/corporate-governance>.

The Management Board, also acting on behalf of the Supervisory Board, reports on corporate governance in the corporate governance statement and on the company's website at:

<https://www.pvatepla.com/investor-relations/corporate-governance>.

Election of the audit firm BDO AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, as the auditor for the German GAAP annual financial statements and the consolidated financial statements for fiscal year 2023 was proposed to the Annual General Meeting. The Supervisory Board and the Audit Committee had satisfied themselves of the auditor's independence within the meaning of section 107(3) sentence 2 of the AktG and had obtained and evaluated a corresponding declaration of independence.

Following approval by the Annual General Meeting, the Audit Committee engaged the auditor and determined the audit fee. Additionally, the key focus areas for the audits of the German GAAP annual financial statements and the consolidated financial statements for 2023 were agreed between the Audit Committee and the auditor.

In accordance with a resolution of the Supervisory Board, the auditor may also provide certain due diligence services, including any relevant ancillary, training and other advisory services that may arise. Before engaging the auditor to provide such services, the Management Board and Audit Committee review in each case whether these services are permitted or could compromise the auditor's independence.

The members of the Supervisory Board are responsible for identifying any further training or education required for the performance of their duties – for example, in relation to changes to the legal framework or new, forward-looking technologies.

## Audit and annual financial statements

BDO AG, Frankfurt am Main, which was elected by the Annual General Meeting on June 28, 2022, audited the German GAAP annual financial statements and the consolidated financial statements as of December 31, 2023, including the combined management report, and issued an unqualified audit opinion in each case.

The auditor concluded that the German GAAP annual financial statements and the consolidated financial statements were prepared in accordance with the requirements of the German Commercial Code (HGB) and the International Financial Reporting Standards (IFRSs), respectively, and that they give a true and fair view of the net assets, financial position and results of operations.

BDO AG Wirtschaftsprüfungsgesellschaft conducted a limited assurance review of the combined nonfinancial statement in accordance with ISAE 3000 (Revised). The "Limited assurance report of the independent auditor" can be found on pages 169 ff. On the basis of the limited assurance engagement, the auditor raised no objections to the reporting or its fulfilment of the relevant requirements. The auditor also reviewed the remuneration report for fiscal year 2023 and the associated disclosures.

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The financial statements together with the management reports and the relevant auditor's reports were sent to each member of the Supervisory Board and Audit Committee. These documents were evaluated by the Supervisory Board and Audit Committee and discussed in detail at their meetings on March 12, 2024. The auditor reported on the main findings of their audit at these meetings. We reviewed the German GAAP annual financial statements, the management report and the audit opinion on the management report, as well as the proposal on the appropriation of net retained profit, the consolidated financial statements and the Group management report. No objections were raised. We therefore accept the results of the audit. We approve the German GAAP annual financial statements and the consolidated financial statements prepared by the Management Board. The German GAAP annual financial statements are thus adopted in accordance with section 172 sentence 1 of the AktG.

We are in agreement with the management reports and, in particular, the assessment of the company's ongoing development. The Supervisory Board concurs with the Management Board proposal to carry forward the reported net retained profit.

### **Changes on the Supervisory Board and Management Board**

The composition of the Management Board and Supervisory Board changed as follows in the period under review:

Former CEO Manfred Bender and Management Board member Dr. Andreas Mühe left the company as of June 30, 2023. In the course of reorganizing PVA TePla's senior management team, CFO Jalin Ketter and COO Oliver Höfer took over management of the PVA TePla Group effective July 1, 2023. In addition to her duties as CFO, Jalin Ketter took on the role of Management Board Spokeswoman and, as of January 1, 2024, the function of CEO.

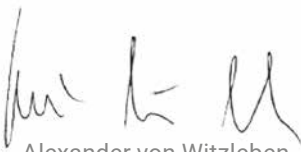
We further enhanced our skillset with the addition of Dr. Myriam Jahn as a new Supervisory Board member. Dr. Jahn is a semiconductor equipment and machine engineering industry expert, with additional expertise in the areas of digitalization, ESG, sales and human resources management. This makes her an ideal complement to the skills profile for the full board established by the Supervisory Board. Dr. Jahn was elected by the Annual General Meeting on June 28, 2023.

### **Thanks from the Supervisory Board**

The Supervisory Board would like to thank the Management Board and all employees for their work.

Wettenberg, Germany, March 2024

For the Supervisory Board



Alexander von Witzleben

Chairman of the Supervisory Board of PVA TePla AG

## PVA TePla on the capital market

### Strong year-end rally for PVA TePla stock

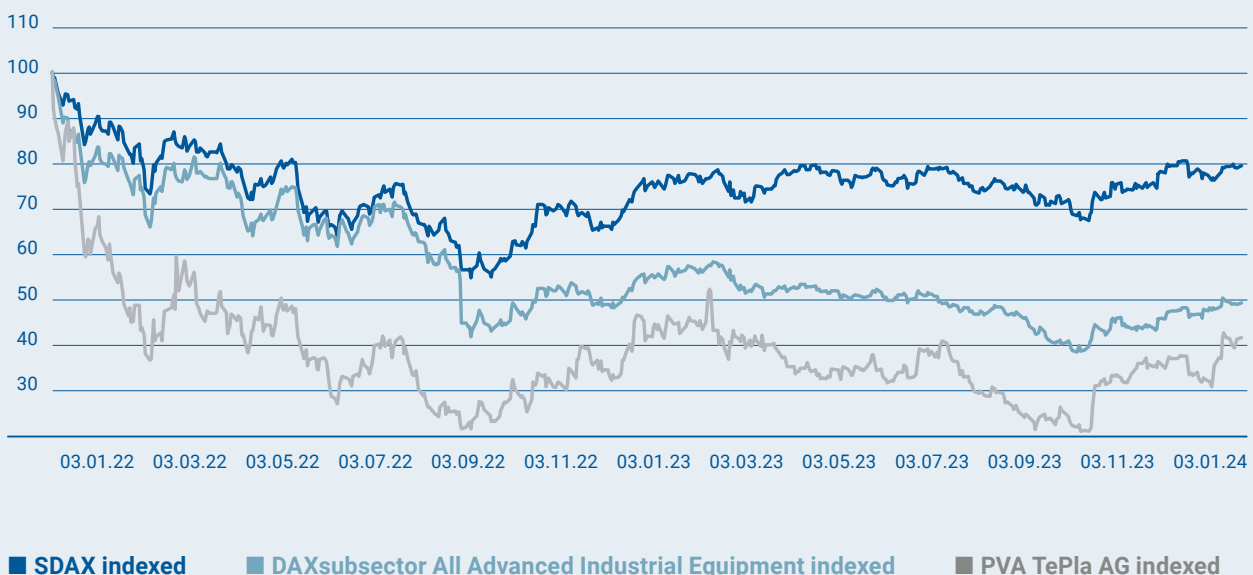
The 2023 stock market year was considerably more successful than many experts had predicted. The DAX, Germany's benchmark index, surpassed the 17,000-point mark for the first time, closing on an annual increase of 19 percent. In the USA, the leading indices excelled, posting hefty price rises and notching up record highs. Despite the ongoing geopolitical uncertainties and new crisis flashpoints in the Middle East, hopes of central bank interest rate cuts started to prevail in the fall, pushing up share prices. Sentiment was buoyed by the resilient economic growth in parts of the world as well as better-than-expected company profits.

In this dynamic market environment, PVA TePla AG's shares put in a solid overall performance in the year under review, ending the stock market year up 9.3 percent (previous year: decline of 57.6 percent). The share price started 2023 at EUR 18.66, rose to a peak of EUR 25.92 on March 1, and dropped to its lowest point of EUR 14.16 at the end of October. The relatively sharp decline in the share price, even compared with the SDAX, can be partly explained by changes in the shareholder structure and temporary weakness in the semiconductor market. Starting from the end of October, the share price regained ground, jumping 44.1 percent in the space of just two months to reach EUR 20.40 by the end of the year. The spread between the highest and lowest price was 83.1 percent (previous year: 321.6 percent).

Due to the geopolitical and economic circumstances outlined above, the capital markets painted a mixed picture in the year under review. While most large-cap indices rose, small-cap indices posted significantly lower gains and, in some cases, declined. The PHLX Semiconductor Index for semiconductor stocks climbed by an impressive 67.0 percent (previous year: decline of 33.0 percent). The Nasdaq 100 recorded an increase of 53.8 percent (previous year: decline of 33.0 percent), while the MSCI World Index rose by 21.6 percent (previous year: decline of 17.7 percent). In Germany, the DAX 40 recorded a 19.1 percent rise (previous year: decline of 13.8 percent), while the SDAX increased by 15.5 percent (previous year: decline of 28.8 percent). The DAXsubsector All Advanced Industrial Equipment, which is the sector-specific index relevant for PVA TePla, fell by 18.8 percent (previous year: decline of 50.8 percent).

### PVA TePla share performance

against DAXsubsector All Advanced Industrial Equipment (indexed)





With unchanged share capital of EUR 21,749,988.00, PVA TePla AG's market capitalization increased to EUR 443.7 million at year-end (previous year: EUR 403.7 million). PVA TePla AG carried out no corporate actions in the period under review. The shareholder structure is broadly diversified, with a free float of 100 percent. Interest from institutional investors has grown considerably, with Morgan Stanley, Lazard Frères Gestion and the Janus Henderson Group funds reporting respective shares of over 3 percent and 5 percent.

The capital market notifications issued by PVA TePla during the year gave every reason for optimism about the company's continued economic success and confirmed the earnings and growth targets. The sustained healthy demand for the Group's highly specialized solutions for various industrial sectors – including automation, digitalization, electromobility and the energy transition – benefited both our semiconductor and industry operating segments, which recorded double-digit growth. At the same time, the company's operating margin reached double digits.

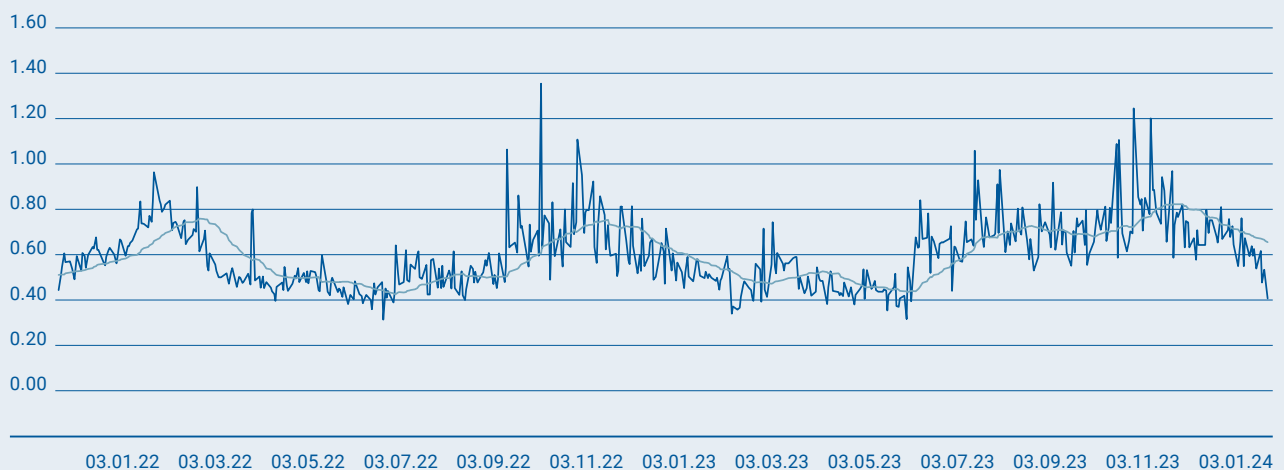
### Strong liquidity and ready negotiability: PVA TePla share remains attractive to investors

The trading liquidity of PVA TePla shares remained largely stable compared with the previous year, with an average of 107,500 (114,000) shares per trading day traded on XETRA, tradegate and the regional stock exchanges. It is also possible that shares were placed off exchange. On exchange, around 68 percent (previous year: 72 percent) of trades were executed on the XETRA trading platform.

That PVA TePla's shares retain their attractive negotiability even in more volatile market conditions is demonstrated, for instance, by the sustained low average spread between the bid and ask prices, as illustrated in the chart below for the years 2022 and 2023. The average spread remained virtually unchanged compared with the previous year at 0.376 percent (0.359 percent). This positive trading performance was supported by the increase in the free float to 100 percent. Generally speaking, the ready negotiability of PVA TePla's shares enhances their attractiveness to institutional investors.

#### Development of the average spread

Spread in % between XETRA bid and ask prices 2022 to 2023



■ Rolling 30-day average  
■ Spread in %

Source: Pareto, own calculations

## Investor relations work

PVA TePla AG's investor relations work in fiscal year 2023 again centered on maintaining a dialog with capital market participants through continuous, timely and transparent reporting of relevant company events and developments. The aim is to further boost confidence in the company's performance as well as its financial and technological profile, at the same time delivering the transparency and market knowledge required to let analysts, shareholders and potential investors obtain a clear and appropriate picture of the company. PVA TePla makes every effort to clearly explain its business model, technological developments and products, sales markets as well as its growth and earnings potential to capital market players and ensure that they are kept up to date.

PVA TePla maintains direct contact with private and institutional shareholders and analysts. In the year under review, the Management Board and the Investor Relations (IR) team conducted numerous individual and group meetings, participated in conferences and held roadshows across Europe. The Management Board and IR team answered investors' and financial analysts' questions about PVA TePla Group's business strategy and performance as well as industry and market trends. Since interest in PVA TePla remains high, there was a further significant increase in the number of meetings held in 2023. The discussions with institutional and private investors focused heavily on the long-term prospects for the semiconductor market – particularly in the areas of silicon and silicon carbide crystallization – as well as metrology and the PVA TePla Group's operating profitability.

## Broad research coverage

In fiscal year 2023, a total of nine national and international investment banks, brokerage houses and boutique investment firms regularly published equity research reports on PVA TePla AG. Quirin Bank initiated coverage of the company in the year under review.

## PVA TePla research coverage 2023

Bank	Location	Analyst	Rating	Target price	Last update
Berenberg	London	Gustav Froberg	Buy	33.00 €	Feb. 2024
Deutsche Bank	Frankfurt	Uwe Schupp	Hold	25.00 €	Feb. 2024
Jefferies	London	Constantin Hesse	Buy	24.00 €	Feb. 2024
Matelan	Bonn	Hartmut Moers	Buy	29.50 €	Feb. 2024
Montega	Hamburg	Miguel Lago Mascato	Buy	33.00 €	Feb. 2024
Oddo BHF	Paris	Melek Laabidi	Buy	35.00 €	Feb. 2024
SMC Research	Münster	Adam Jakubowski	Buy	33.00 €	Feb. 2024
Stifel	Frankfurt	Jürgen Wagner	Buy	27.00 €	Feb. 2024
Quirin	Frankfurt	Vincent Steindl	Buy	29.70 €	March 2024

Overall, based on their valuation models, most analysts consider PVA TePla's shares to have further upside potential. No institutions recommend selling the stock.

## PVA TePla shares – master data

ISIN	DE0007461006
WKN	746100
Symbol	TPE
Reuters Instr. code	TPG.DE
Bloomberg symbol	TPE GY Equity
Share type	Common stock
Share form	Bearer share
Initial listing	06/21/1999
Market	Regulated market
Market segment	Prime Standard
Supersector	Industrials
Sector	Industry
Subsector	Advanced Industrial Equipment
Index membership	SDAX, CDAX, Prime All Share, DAXsubsector Advanced Industrial Equipment
Number of shares	21.749.988
Par value	No-par value common bearer shares, national value EUR 1.00
Share capital	21.749.988,00 €

## PVA TePla share data


	2023	2022	2021	2020	2019
Price as of Dec. 31 in EUR	20.4	18.56	41.90	19.60	15.30
Number of shares	21,749,988	21,749,988	21,749,988	21,749,988	21,749,988
Market capitalization in EUR million	443,699,755	403,679,777	911,324,497	426,299,765	332,774,816
Highest price in EUR	25.92	44.60	50.60	20.90	15.90
Lowest price in EUR	14.16	13.87	16.50	5.68	10.10
Spread highest vs. lowest price in %	83.05 %	221.6 %	206.7 %	268.0 %	57.4 %
XETRA trading volume/trading day	73,515	82,149	83,985	51,775	25,117
XETRA turnover in EUR million/trading day	1.469	1.858	2.695	0.618	0.307

# Combined Management Report

## Fundamentals of the Group

### About this report

The PVA TePla Group's Annual Report 2023 includes both financial and nonfinancial information. The report presents a comprehensive overview of the economic, environmental and social aspects of our activities. In line with the integrated reporting concept, the combined management report contains the combined nonfinancial statement in accordance with sections 315b, 315c in conjunction with sections 289b to 289e of the German Commercial Code (HGB).

This content is marked with the following symbol: 

The contents of the combined nonfinancial statement, together with other information contained in this report, are based on the standards of the Global Reporting Initiative (GRI). The GRI content index can be found at the end of the report. For any questions regarding sustainability, please reach out to the contacts listed on the last page of this report.

### Contents of the combined nonfinancial statement

Components of the combined nonfinancial statement in accordance with the HGB	Relevant section	
Framework	About this report	
Business model	Business activities and strategy	
Sustainability management	Sustainability *	
Risks	ESG risk and opportunity management *	
Aspects	Relevant section	Action areas
Environmental matters	Our contribution to climate change mitigation *	<ul style="list-style-type: none"> <li>– Increasing energy efficiency and reducing CO<sub>2</sub> emissions</li> <li>– Waste</li> </ul>
Employee matters	Responsibility for our team *	<ul style="list-style-type: none"> <li>– Occupational health and safety</li> <li>– Training and education</li> <li>– Promotion of employee satisfaction</li> <li>– Diversity</li> </ul>
Respect for human rights	Responsible corporate governance *	<ul style="list-style-type: none"> <li>– Conscientious selection of players in the supply chain and sales regions</li> </ul>
Combating corruption and bribery	Responsible corporate governance *	<ul style="list-style-type: none"> <li>– Ensuring compliance at PVA and in the supply chain</li> </ul>
Social matters		Since it is of secondary importance to understanding PVA's business performance, the aspect of social matters was not classified as material within the meaning of section 289c of the HGB *
R&D	Fundamentals of the Group – Research and development	<ul style="list-style-type: none"> <li>– R&amp;D activities in the context of customer projects</li> <li>– Non project-related R&amp;D activities</li> </ul>

\* This section is part of the combined nonfinancial statement, which contains the disclosures in accordance with sections 289c to 289e of the HGB and section 315c of the HGB and is not included in the audit of the financial statements in accordance with section 317(2) sentence 4 of the HGB. However, it was subject to a limited assurance review in accordance with ISAE 3000 (Revised).

The reporting period covers the fiscal year from January 1 to December 31, 2023. The report includes all relevant information available up to the point that the responsibility statement was issued on March 12, 2024, to ensure that it is as up to date as possible.

The management report combines the management report of the PVA TePla Group and the management report of PVA TePla AG. In it, we report on the development and performance of the business as well as the position and expected forward development of the Group and the AG (Aktiengesellschaft, stock corporation under German law). The information on PVA TePla AG can be found in the section "Short report on the single-entity financial statements of PVA TePla AG", with disclosures prepared in accordance with the German Commercial Code (HGB). German Accounting Standard 20 (GAS 20) "Group Management Report" was applied.

The consolidated financial statements include the company and its subsidiaries. To make it clear which disclosures relate to the parent company and which to the Group, the parent company is always referred to as "PVA TePla AG". The terms "PVA TePla Group" or "PVA TePla" are used for disclosures relating to the Group. Where the above distinction is not made and no other indication is given, the disclosures relate equally to the Group and the parent company. The reporting date is December 31.

All amounts are presented in millions of euros (EUR million), unless otherwise stated. For technical reasons, the information presented in these financial statements may contain rounding differences of +/- one unit (EUR thousand, %, etc.). Unless otherwise stated in the text, margins and ratios relate to revenue.

This document contains forward-looking statements based on estimates made by management or third parties. Forward-looking statements may involve risks and uncertainties. Many of these risks and uncertainties are determined by factors beyond PVA TePla's control.

## Business activities and strategy

PVA TePla is a leading provider of high-tech solutions in the fields of materials technology and metrology. With a broad portfolio of innovative products, processes and services, PVA TePla supports customers in overcoming demanding challenges in a wide variety of industries that are driven by the global megatrends of digitization, decarbonization and mobility. PVA TePla manages and maintains business relationships worldwide through its locations in Germany, France, Italy, USA, China, Taiwan, Korea and Singapore. Going forward, PVA TePla's regional growth initiatives will focus in particular on Asia and the Americas.

As a systems supplier, PVA TePla develops and produces custom solutions for materials processing, finishing and production. We provide systems and solutions for the manufacture of semiconductor materials, crystals, optical components and other high-tech materials – from conception to production. These enable customers to optimize their production processes and manufacture premium materials meeting the highest standards in quality and efficiency. In the area of metrology solutions, we offer high-precision measurement and analysis instruments for diverse applications – from surface inspection to 3D inspections for the purpose of quality control, process monitoring and failure analysis. These help our customers improve product quality, optimize production processes and bolster their competitive position in the market.

We consider ourselves to be more than simply a systems supplier – we support our customers as a development and technology partner. This intensive customer focus builds strong and lasting customer trust and generates additional impetus for innovation.

With our “PVA Technology Hub”, which was launched in the reporting period, we intend to accelerate our evolution from systems manufacturer to solutions provider. The PVA Technology Hub focuses on the development of processes and systems for the production, processing and application of high-tech materials and components. The initial phase will center on applications in the field of silicon carbide.

In the past, the continuous expansion of our technology and product portfolio has been underpinned by in-house developments as well as the acquisition of high-performance, innovative companies. We review possibilities for the targeted expansion of our service portfolio on an ongoing basis, with the aim of capturing additional business areas and regional markets as well as harnessing PVA TePla’s growth potential.

Sustainability is firmly embedded in our business activities. We are committed to leveraging our performance, particularly in the areas of employee matters, R&D and environmental matters, as well as our opportunities in the related markets, to further increase the value of the company.

In our sustainability strategy, which was adopted in fiscal year 2022, we have set ourselves the goal of becoming CO<sub>2</sub> neutral<sup>1</sup> by 2024. We intend to achieve this by avoiding or reducing emissions as far as possible. The remaining greenhouse gas emissions will be offset through investment in climate protection projects or carbon offset certificates. We report on our progress with this ambitious project in the “Sustainability” section of this report.

The constant improvement in our products’ efficiency, lifespan and safety has always been a core element of our research and development activities. In this way, we help our customers to operate sustainably. But, for us, sustainability is not limited to the environment. We have also defined clear targets and values in the areas of employee matters and corporate governance. Detailed information can be found in the “Sustainability” section of this report.

## Organizational structure

PVA TePla AG, Wettenberg, is a stock corporation under German law and the parent company of the PVA TePla Group. The company is registered in the commercial register at the Local Court in Giessen under the number HRB 6845 and has its registered office in 35435 Wettenberg, Germany. PVA TePla AG’s shares have been listed in the Prime Standard segment of the Frankfurt Stock Exchange since June 21, 1999 (ISIN: DE0007461006).

The Group’s operating activities are currently allocated to two operating segments: Semiconductor Systems and Industrial Systems. The Semiconductor Systems operating segment, which accounted for 71 percent of consolidated revenue in the reporting period, comprises solutions as well as plant and equipment systems for the semiconductor industry, primarily crystal growing systems, metrology systems for quality control and plasma systems for removing surface contamination from wafers. The Industrial Systems operating segment comprises solutions as well as plant and equipment systems for the semiconductor industry for the production, refinement and inspection of innovative materials, for surface treatment, cleaning and inspection, and for monitoring production processes, which are specially configured to meet the requirements and needs of other industries, such as the medical, electrical and tool industries. In the year under review, 29 percent of revenue was attributable to the Industrial Systems operating segment.

<sup>1</sup> With regard to Scope 1 and Scope 2 emissions. Other greenhouse gases are converted into CO<sub>2</sub> equivalents in accordance with the Greenhouse Gas Protocol.

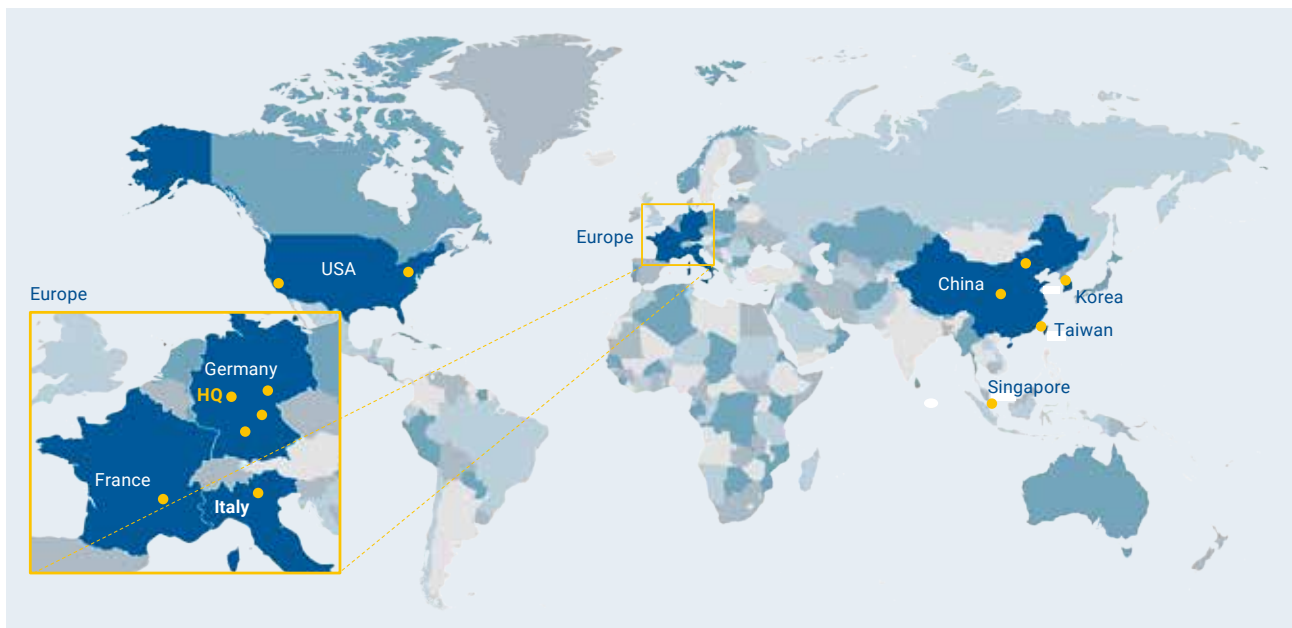
## Governance structure

The executive bodies of the company are the Management Board, the Supervisory Board and the Annual General Meeting. The company has a dual management and supervisory system comprising the Management Board and the Supervisory Board. The responsibilities and powers of these bodies are determined by the German Stock Corporation Act (AktG), the articles of association and the schedules of responsibilities of the Supervisory Board and Management Board.

PVA TePla AG's Management Board currently has two members, who are jointly responsible for managing the Group. The Supervisory Board was joined by one new member by resolution of the Annual General Meeting on June 28, 2023, bringing its total membership to four. It appoints the Management Board, as well as advising it and monitoring its management activities. The Supervisory Board is directly involved in decisions of fundamental importance to the company. In particular, it reviews the annual financial statements and the (Group) management report and reports on this to the Annual General Meeting.

The two bodies work in close cooperation in the interests of PVA TePla. Further details can be found in the section "Corporate governance statement and corporate governance report".

## Major locations and basis of consolidation



The management and parent company of the Group is PVA TePla AG with its registered office in Wettengel, Germany. It has various equity investments in Germany and abroad. As of December 31, 2023, these included eight German (previous year: eight) and ten foreign (previous year: ten) sales and production locations in France, Italy, China, Singapore, Korea, Taiwan and the USA. Production and assembly of our equipment and systems as well as the service business (contract processing) primarily take place in Germany at the Wettengel, Jena, Westhausen and Coburg locations. Outside Germany, production is carried out at the sites in Corona and Manassas (both USA), Schio (Italy) and Chapelle d'Aurec (France).

Full details of PVA TePla AG's equity investments as of December 31, 2023, are presented in section "C. Basis of consolidation, consolidation methods and foreign currency translation" of the notes to the consolidated financial statements.

## Management system

The Management Board of PVA TePla AG is responsible for managing the company, setting targets and determining the strategic orientation of the Group as well as overseeing implementation of its growth strategy. The primary objective of our business development is to increase the company's value for all stakeholders and to ensure our sustained profitable growth. Our focus on adding value is likewise reflected in the variable compensation components awarded to management. The compensation system plays a major role in the Group's development: Market capitalization is used to define multiyear performance criteria linked to the company's long-term success, and the long-term components of the variable compensation are heavily weighted.

Both short-term budgets and the company's medium to long-term targets are defined on the basis of operational key performance indicators. To simultaneously support growth and boost profitability, we manage the Group on the basis of the financial key performance indicators of revenue and EBITDA (earnings before interest, taxes, depreciation and amortization). The financial key performance indicators are calculated, analyzed and planned throughout the Group using standard methodology. Attainment of the defined targets is likewise monitored.

We use additional performance indicators to manage our business activities and measure the success of our company. Examples of other financial performance indicators are order intake and order backlog, revenue by region and various cost ratios. The nonfinancial key performance indicators include the volume of CO<sub>2</sub> emissions (Scopes 1 and 2, before offsetting). We do not wish to consume any more than is strictly necessary in order to attain our economic goals. To achieve this, we measure the environmental footprint of our own locations worldwide and strive to reduce and avoid CO<sub>2</sub> emissions as far as possible. Offsetting of unavoidable emissions is to be carried out as a first step.

## Key performance indicators

in EUR million	2023	2022
Revenue	263.4	205.2
EBITDA	41.5	30.0

**Revenue:** PVA TePla aims to continuously increase revenue as the basis for the company's profitable development. Revenue and its development are calculated by region and application segment each month and presented to management in a timely manner so that it can react promptly to any short-term changes where necessary.

**EBITDA:** Like revenue, EBITDA and the EBITDA margin are calculated on a monthly basis and presented to management as part of internal reporting.



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## Research and development

The PVA TePla Group is a global manufacturer of high-tech systems and solutions that are essential for the key areas of digitization, decarbonization and mobility. As an innovative company, we are committed to developing and producing high-quality products and systems, firm in our belief that innovations are a crucial engine for our forward growth and sustainable development.

Close cooperation with our customers is a core element of our research and development (R&D) work, enabling us to create solutions tailored to their specific applications as well as to enhance the efficiency of their workflows and processes.

The Management Board as well as the respective specialist departments and subsidiaries share responsibility for devising new developments and for refining existing solutions. Our employees play an especially significant role with regard to technological optimization. Backed by their comprehensive process expertise, they provide valuable impetus for future developments.

We screen relevant markets and trends continuously in order to identify opportunities that link up with our technologies and skills. Our aim is to make it easier for our customers to measure the durability and safety of our systems. Analyzing our products with a view to potential efficiency improvements and conserving resources is another focal point.

Energy efficiency is not only a priority when it comes to production processes, it is already taken into account during product development. At the same time, the ongoing optimization of existing product lines is a core theme of our research and development work. We consistently strive to offer our customers innovative, advanced, top-quality solutions that lend them a competitive edge.

In the year under review, we forged ahead with the groundwork for our PVA Technology Hub. From fiscal year 2024, the PVA Technology Hub will play a pivotal role as an internal and external service provider by creating customized solutions from the ground up. These solutions will extend beyond the traditional areas of product development, delivery and system installation.

The purpose of the PVA Technology Hub is to provide end-to-end advice covering the entire development cycle. Starting with idea generation, our experts will help customers select appropriate technologies and remain by their side throughout the product development process. Alongside devising new solutions, this 360-degree approach lets us seamlessly dovetail them with our customers' specific requirements and objectives. In the initial phase, the Technology Hub will focus on applications in the field of silicon carbide. This material is of particular interest for forward-looking sectors such as electromobility, renewable energies and aviation and is expected to further accelerate demand for the corresponding crystal growing capacities. The establishment of the PVA Technology Hub bolsters our position as a leader in the field of research and development.

The objective of our R&D activities is diversification into new markets that contribute to a more sustainable world, while simultaneously promising new business opportunities. For many years, we have already been playing our part in the area of digitalization – for example, with our crystal growing systems which are used in the development of high-tech chips for server solutions, the IoT and 5G. In line with our corporate strategy, we are now expanding into markets whose future growth will be driven by the megatrends of mobility and decarbonization. When it comes to mobility, this includes the development of processes to produce innovative materials for electromobility as well as measurement and monitoring systems that are faster, more accurate and more automated thanks to the greater use of AI. Ultrasonic measuring systems reduce material waste and improve quality, helping to conserve valuable resources.

In the decarbonization field, we carried out important preliminary work for a customer project related to energy storage systems in fiscal year 2023. PVA TePla has been contracted to develop a reactor for the production of an electrode material. This material forms the basis for creating powerful energy storage systems with significantly improved performance characteristics. It is used in storage media such as supercapacitors. The advantages of these energy storage systems used, for instance, in the automotive, transportation and energy industries include high power density and reliability, virtually instantaneous charging and discharging as well as a very long service life of more than 1,000,000 charging cycles. This makes supercapacitors one of the energy storage systems of the future, delivering a vital contribution on the path to an emission-free industry. They can also help ensure the stability of the electricity grid as the supply of volatile renewable energy grows. This is crucial for the transition to a sustainable and emission-free industry.

Another development project in the reporting period related to the field of energy distribution, particularly in wind farms. As part of our research and development activities, we have introduced a highly productive system concept, including automated feeding unit, which was specially developed for brazing high-voltage interrupters. Up to now, high-voltage interrupters have typically been manufactured using the gaseous insulator sulfur hexafluoride (SF<sub>6</sub>), which has a significant climate impact. Approximately 23,500 times more harmful than carbon dioxide and remaining in the atmosphere for around 3,000 years, SF<sub>6</sub> is a potent greenhouse gas.<sup>2</sup> By using vacuum brazing technology in UHV (ultra-high vacuum) brazing systems, climate-damaging SF<sub>6</sub> can be replaced as an insulator by a sustainable, climate-friendly technology.

In addition, the innovative technology used in our diffusion bonding systems has demonstrated its relevance and ability to add value for the hydrogen industry. We successfully produced diffusion-bonded heat exchangers made from steels or nickel-based alloys. These are able to withstand extreme process temperatures (-200 to 600°C) and pressures (up to 1,000 bar) thanks to the strength of the joints. Known as printed circuit heat exchangers (PCHEs), they are well suited to applications such as industrial waste heat recovery and gas liquification as well as in the hydrogen infrastructure for fuel cell mobility. In 2023, we delivered two state-of-the-art diffusion bonding systems specifically designed for the production of PCHEs.

Examples of solutions under the mobility megatrend umbrella – particularly in relation to electromobility and the railroad industry – that were another focus of our R&D activities in 2023 included development work on a furnace concept for brazed ceramic substrates as circuit carriers for high-performance electronic components based on silicon carbide (SiC) semiconductors. Among other applications, these are required for the fast-charging of battery-powered electric vehicles.

Additionally, we developed a multichannel ultrasonic measuring system for a customer in the German automotive industry. This solution has doubled inspection speeds. The multichannel system provides an efficient means of simultaneously recording and monitoring several parameters during the inspection process. Critical quality parameters such as mechanical load, temperature behavior and electrical properties can now be checked in real time. This allows for faster measurement data acquisition and accelerates the entire inspection process. The integration of several independent channels enables parallel data acquisition. This is especially beneficial in the automotive industry, where precision and efficiency are paramount. In addition to improving efficiency, the doubling of inspection speeds helps minimize production costs and shorten lead times.

<sup>2</sup> <https://www.umweltbundesamt.de/themen/verbot-des-klimaschaedlichen-sf6-in>

Our work in 2023 also addressed the use of chemical vapor infiltration (CVI) technology for silicon carbide infiltration, which represents a major step forward in the field of high-performance ceramics, especially in the production of ceramic matrix composites (CMC). This technology has gained a foothold in the aviation industry. Traditionally, metallic materials have been used for turbine applications in aviation. By using CMC, it is possible to develop materials with exceptional high-temperature and lightweight construction properties, combining the respective advantages offered by ceramics and metals. This integrated approach contributes to enhancing turbine performance while at the same time minimizing energy consumption in the aviation industry.

An average of 26 employees worked in the field of research and development in the reporting period. This relates to the number of employees directly assigned to R&D. In parallel, we conduct ongoing research and development in the context of customer projects. Direct R&D expenses amounted to EUR 9.5 million in the 2023 reporting year, compared with EUR 6.5 million in the previous year. Indirect expenses incurred in the context of customer projects are not included in this figure. This gives an R&D to revenue ratio of 3.6 percent, compared with 3.2 percent a year earlier<sup>3</sup>. Development activities are carried out both as part of specific research and development projects and in connection with customer orders. The latter are not taken into account in the R&D ratio or in the number of employees.

## Sustainability

Sustainability is an integral component of PVA TePla's strategic positioning, which aims to create mutual added value for the company and its stakeholders. Our emphasis is on empowering each and every employee to work and operate sustainably – for example, through training, workshops as well as the implementation of sustainable practices and processes – while simultaneously promoting long-term employment relationships by cultivating employee satisfaction. As an international company with regional roots, we are well aware of the crucial role our employees, the community and environmental conservation play in our company's success. The comprehensive integration of environmental, social and governance (ESG) aspects in our organizational structures and processes as well as in the business model, coupled with our continuous research and development work, ultimately generate long-term added value for all of our stakeholders.

A key priority for the PVA TePla Group, sustainability is one of the core strategic focus areas in managing the Group. The various aspects of sustainability are taken into account in strategy, management and day-to-day operations. In line with this, operating responsibly is also a major element of our company policy. Implementing sustainability measures is currently the responsibility of the Management Board, supported by the ESG Management department (hereinafter referred to as "ESG Management") and various other business areas. Consultation with the Supervisory Board takes place on a regular basis.

The PVA TePla Group addresses a wealth of sustainability issues across all areas of the organization – from human resources management and procurement through research and development to production. The relevant business or department heads, or persons appointed by them, are responsible for implementing strategic initiatives and tracking their progress. Due to the Group's decentralized organizational structure, support is provided by local subsidiaries as necessary. These measures are implemented and reviewed on a rolling basis to ensure that they consistently contribute to the company's sustainable development. All measures are understood to be ongoing, unless different timing is specified.

<sup>3</sup> Calculation basis since FY 2022: R&D expenses according to income statement as a proportion of revenue

As part of our continuous improvement, we will go on expanding our sustainability efforts as a strategic focus in the coming years as well as updating or augmenting existing targets and measures. Furthermore, we will define new targets and develop measures to further enhance our sustainability performance.

### Materiality and stakeholder engagement

The focal points of our sustainability management in accordance with the Non-financial Reporting Directive (German CSR-RUG) were determined by a materiality assessment carried out at the end of 2020. The process for identifying the material topics was based on the four steps of the GRI Standards. To filter out the relevant areas, we first drew up a catalog of topics, which we subsequently revised, consolidated and clustered. Topics material to understanding the Group's business performance and on which PVA TePla has material impacts through its own business activities were identified as "material topics". Internal and external stakeholder groups were involved in identifying the material topics – for instance, in the form of a public stakeholder survey.

The company annually reviews the extent to which the topics identified in the materiality assessment are still relevant and comprehensive. The annual review for 2023 did not result in any substantial changes to the topics identified.

Since it is of secondary importance to understanding PVA TePla's business performance, the aspect of social matters in the context of corporate responsibility was not classified as material within the meaning of section 289c of the HGB. In principle, for example, the company does not make donations or provide sponsorship to political parties or political organizations in Germany or abroad. Donations or sponsorships for sporting, charity or similar events require Management Board approval and are only engaged in to a limited extent, meaning they are not relevant to understanding business performance.

### Responsible corporate governance

The PVA TePla Group's good reputation is crucial when it comes to defining its relationship with business partners, employees, competitors, shareholders and the public. Our wholehearted commitment to values such as credibility, reliability, discretion and integrity together with our adherence to laws, regulations, rules and internal standards play a vital role in this respect. The PVA TePla Group's sustainable business development is founded on fundamental values and principles that are intrinsic to our corporate culture. We regard compliance with applicable laws and regulations to be an essential prerequisite for the success of our business. In particular, we attach great importance to fair competition as well as to treating our business partners and employees fairly and with respect.

## Good corporate governance und compliance

In addition to legal requirements and internal rules, PVA TePla's regulatory framework includes the German Corporate Governance Code. The declaration of conformity of the Management Board and Supervisory Board is reproduced in the corporate governance statement.

The PVA TePla Group has implemented a risk and compliance management system (RCMS) to ensure that its business ethics policies are firmly embedded and correctly implemented throughout the company. Additionally, the RCMS is used to identify and continuously assess both compliance risks and risks that are purely economic in nature.

The cornerstone of risk and compliance management is the most recently published version of the Code of Conduct. This document describes the risks associated with business dealings and provides specific recommendations regarding conduct. The Code of Conduct is applicable to all PVA TePla Group employees and management worldwide. In the medium term, the Group plans to standardize the communication of these policies to customers and suppliers through the introduction of a Supplier Code of Conduct, ensuring our requirements are clearly conveyed to suppliers.

The Code of Conduct contains rules regarding data privacy, environmental protection and requirements governing fair competition, corruption and bribery.

The PVA TePla Group has established various training portals, which will be expanded going forward. Notably, there are plans to enhance the training offered on subjects such as occupational health and safety, IT security, compliance, data security and conduct toward colleagues.

A culture of looking out for and reporting violations is consciously promoted and modeled by PVA TePla Group's management. Employees are to be encouraged to report potential violations and become actively involved in implementing the Code of Conduct. This is of vital importance to the PVA TePla Group, as situations of this kind could result in considerable reputational damage, fines or, in extreme cases, prison sentences for employees who have breached legal requirements. Our aim is to avoid bribery and corruption entirely (including conflicts of interest, money laundering, etc.) in order to foster a compliant and ethical working environment that makes it possible to identify and prevent risks before they materialize.

## Whistleblowing

In accordance with the German Whistleblower Protection Act (Hinweisgeberschutzgesetz), an internal reporting office for whistleblowers was established in the year under review. Employees can use this reporting office to report potential or actual misconduct or breaches of legal requirements that they have observed, regardless of whether these are committed by other employees or business partners.

**Whistleblowing cases: 0 (previous year: 0)**



Alongside employees, other stakeholders such as business partners, customers, suppliers and shareholders are a valuable source of information. They can likewise help us to identify breaches of legal and ethical standards.

In connection with setting up the internal reporting office, a freely accessible online platform has been made available (<https://whistleblowersoftware.com/secure/PVA>). This platform can be used to anonymously or confidentially notify us of suspected cases that fall within the scope of the Whistleblower Protection Act. To ensure legal compliance, external lawyers are the first point of contact for this reporting office. Appropriate follow-up action is taken by qualified, in-house contacts acting in consultation with the lawyers.

Maintaining the confidentiality of this reporting process is of paramount importance to us. Whistleblowers remain assured that they will not suffer reprisals or discrimination from us. We encourage and support employees to take the initiative and help reinforce responsible conduct in our company.

In addition to our whistleblowing system, other reporting channels are available for employees to use if they have suspicions. Points of contact include the relevant manager, the works council, the company's management, corporate security and the human resources department.

The Management Board and, where applicable, the Supervisory Board are immediately informed when suspicions are reported.

### **ESG risk and opportunity management**

Responsible risk and opportunity management is similarly a fundamental part of good corporate governance. The PVA TePla risk management system allows the Management Board to identify and respond to Group-wide risks at an early stage. There are regular reviews of the risk management system's effectiveness.

The PVA TePla Group conducts risk inventories regularly and at least once a year in order to identify potential risks and enable it to respond appropriately early on. These inventories help identify risks in various areas, including production, supply chain, environment as well as occupational health and safety. Furthermore, ad hoc risk inventories are carried out in the course of the year if new risks arise or existing risks change. The risk inventory findings feed into the continuous improvement of processes and systems, minimizing risks and supporting the security and continuity of our business.

Within the framework of ESG risk management, the PVA TePla Group considers potential risks and opportunities along its value chain, paying attention to both internal and external factors. We take an outside-in approach, whereby external factors such as regulatory developments, social trends or environmental conditions are analyzed to assess potential impacts on the company. At the same time, we follow an inside-out approach that examines internal processes and workflows for potential risks affecting the identified sustainability aspects that originate from the company and its business relationships (see the "About this report" section). Our aim is to obtain a comprehensive understanding of the impacts of these risks, implement appropriate risk mitigation measures and take advantage of any opportunities. We are continuously working to improve our ESG approach and more closely involve our stakeholders. In the year under review, we did not identify any highly probable, serious impacts of PVA TePla on the identified sustainability aspects.

For further information about how the PVA TePla Group's risk management system works, please refer to the "Risks and opportunities" section of this report.

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## Sustainability in the supply chain

We are conscious of the fact that our global purchasing activities have a significant environmental impact in our procurement markets. In light of this, we are working on implementing a Group-wide Supplier Code of Conduct. In reference to the German Supply Chain Act (Lieferkettensorgfaltspflichtengesetz), we have introduced measures to ensure we meet our responsibilities in respect of our suppliers.

We organize our procurement processes as regionally as we can, resulting in the shortest possible transportation routes. However, we are aware that it is not always possible or appropriate to purchase regionally. This may be the case, for example, if there are no suitable local suppliers, or if the quality or availability of the required products is inadequate. We intend to continue optimizing our procurement processes, allowing for both economic and environmental aspects.

The US conflict minerals legislation (in the Dodd-Frank Act) requires companies to disclose the origin of certain materials. The purpose is to prevent conflict minerals such as tin, tungsten, tantalum and gold (3TG) from the Democratic Republic of the Congo or neighboring countries from entering supply chains and being used in the company's products without its knowledge. In addition, European Union Regulation (EU) 2017/821, which entered into force on January 1, 2021, establishes extended human rights due diligence obligations for companies with regard to 3TG, by including all conflict-affected and high-risk areas.

PVA TePla does not itself fall within the scope of the Dodd-Frank Act, but does use gold or gold compounds, tungsten and tantalum in some of its production processes. This is why we require suppliers who may be affected by this issue to provide proof of origin.

Based on its own data, the PVA TePla Group did not purchase any conflict minerals from mines in relevant conflict regions in fiscal year 2023.

## Respect for human rights

The subject of human rights violations is of great importance to the PVA TePla Group. Human rights violations could have serious consequences for the company beyond the ethical conflict with our values. Such violations could gravely damage our reputation among customers and employees as well as the general public.

The PVA TePla Group does not allow child or forced labor within its companies or supply chains, stands for equal opportunities and does not tolerate discrimination in any form. We explicitly reject unequal or degrading treatment on the basis of gender, ethnic origin, religion or ideology, disability, sexual orientation or age.

These principles apply across the Group and, as part of our corporate culture, are laid down in writing in the current Code of Conduct. They will also be included in our Group-wide Supplier Code of Conduct. By introducing this Supplier Code of Conduct, we are setting our sights on creating a culture of integrity, transparency and sustainability within the company. The PVA TePla Group aims to prevent human rights violations both within the Group and at all points along the supply chain.

The number of reported cases of suspected human rights violations is considered as the relevant benchmark. No cases of suspected human rights violations were recorded in the period under review.

## Our contribution to climate protection

As a manufacturing company, we are aware that our business activities have an environmental impact, including in the form of air emissions, effluents and waste. Furthermore, to manufacture our products, we rely on natural resources such as water, which is required for the continuous cooling of our manufactured systems and used in a circulating system for this purpose. In order to ensure we play our part in climate change mitigation, we have set ourselves the target of avoiding both direct and indirect greenhouse gas emissions wherever possible. Where emissions are unavoidable, we will reduce these as far as we can and then offset the remainder.

We wish to contribute to overcoming the core challenge of climate change and make every effort as a company to protect the environment. In organizational terms, the topic is addressed by our ESG management team, which reports directly to the Management Board and is responsible for corporate environmental protection.

The aim of our ESG management is to shrink our environmental footprint and establish more environmentally friendly processes. Our main areas of focus are energy, waste and conserving resources.

Our stated target: net CO<sub>2</sub> neutrality (Scopes 1 and 2) by 2024.<sup>4</sup> In 2023, the PVA TePla Group's CO<sub>2</sub> emissions amounted to 2,479.41 metric tons of CO<sub>2</sub> equivalents (previous year: 3,324.84). This corresponds to a year-on-year reduction of 25 percent.

For us, improving efficiency with regard to materials and energy consumption as well as emissions and waste generation are major components of corporate environmental protection. We are focusing on technical modifications and modernization to enhance the energy efficiency of our development and production processes and our buildings. This includes, for example, purchasing electricity generated from renewable energy sources and optimizing production processes through the use of more energy-efficient equipment.

Our strategy for effective energy use and generation involves regularly reviewing electricity costs, consumption and CO<sub>2</sub> equivalents as well as changing electricity suppliers at the locations we own wherever appropriate.

Alongside reducing emissions in our production processes, we have also placed a strong emphasis on energy efficiency in our product development. Moreover, our products are used in forward-looking areas such as electromobility, digitalization and renewables.

### Raising employee awareness of climate protection

We encourage our employees to contribute to climate change mitigation. Our ESG newsletter, which launched in 2022, includes reporting on Group-wide climate protection measures and targets. We also support employees who wish to use climate-friendly transport options. For example, we are replacing leased vehicles with more efficient models on an ongoing basis. At our German locations, we are investing in the installation of electric charging stations in the company's parking lots to promote the switch to electromobility. In 2023, we also produced guidelines on recording and reducing greenhouse gas emissions to inform employees and foster a common understanding of this issue.

Additionally, the PVA TePla Group provides financial support to employees at its German locations through the "JobRad" cycle scheme to promote healthy behaviors. Tax-subsidized bicycles and e-bikes are leased by the employer and made available to employees to use how they wish.

<sup>4</sup> Other greenhouse gases are converted into CO<sub>2</sub> equivalents in accordance with the Greenhouse Gas Protocol.



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## Energy consumption and greenhouse gas emissions

We have set ourselves the target of reducing our energy consumption and minimizing our environmental impact. PVA TePla's energy performance officers at each location play a crucial role in achieving this. The ESG management team is likewise working on establishing standard procedures and, going forward, transferring Group-wide KPIs into management reporting.

At the Jena site in Germany, we are using heat recovery to significantly reduce our energy consumption and heating costs. Waste heat from the production facilities is collected by a recooling tower and fed into the heating circuit by means of a heat pump. In the near future, this will be used to heat a production hall. Heat recovery will save us around 202,300 KWh of gas per year, corresponding to a 27 percent reduction in overall consumption.

The PVA TePla Group primarily uses electricity and to a lesser extent heat. Measures to improve energy efficiency center on our German Wetttemberg and Jena locations, since the production facilities at these sites account for two-thirds of the company's total energy consumption. To achieve independence from non-renewable energy sources such as coal, solar panels have been installed at the Wetttemberg and Jena locations and off-grid solar systems are planned at both sites. The aim is to generate around 20 percent of our electricity needs ourselves, saving some 600 metric tons of CO<sub>2</sub> equivalents per year.

Our long-term goal is to reduce fossil fuel use to a minimum. We took a major step in this direction by transitioning the Wetttemberg and Jena locations to renewable electricity in the year under review. This means that 45 percent of our total electricity consumption came from certified green energy sources in 2023. Looking ahead, that figure will rise to around 80 percent. In the year under review, we saved approximately 1,182 metric tons of CO<sub>2</sub> equivalents, representing a huge stride toward achieving our goal of net CO<sub>2</sub> neutrality by 2024.

Alongside electricity production, energy conservation is a major factor in enhancing sustainability. Measures in this area include switching to LED lighting in the Wetttemberg and Jena production halls and automatically powering off all monitors in our offices and production sites.

For the new buildings at the Wetttemberg and Schio (Italy) locations, we are ensuring that operations are as sustainable as possible and reducing land consumption. In Wetttemberg, construction of a new production and logistics center was almost complete by the end of 2023. Energy efficiency was taken into account – for instance, in the use of district heating, waste heat recovery from production facilities, efficient insulation and a projected solar system on the roof. Additional photovoltaic systems on and around the building are to be installed in 2024.

Construction of PVA Italy's new production site in Schio, for which the groundbreaking took place in June 2023, was also planned with energy efficiency in mind. The building will be equipped with a large-scale photovoltaic system covering a significant share of its electricity requirements, especially in summer when the power yield is highest. Once completed, the electricity generated by the solar system each year amounting to around 371,000 KWh will save some 171 metric tons of CO<sub>2</sub> equivalents annually. The new building is heated by an air heat pump. This can also be used for cooling in summer and is mostly powered by self-generated solar electricity. Thanks to its outstanding overall energy efficiency, the building meets the EU requirements to be classified as a "Nearly Zero Energy Building".

As in the previous year, the Greenhouse Gas Protocol principles and methodology<sup>5</sup> were applied to calculate the greenhouse gas inventory. The calculations partly use estimates based on prior-year figures.

The following emissions are reported:

#### Scope 1:

Direct greenhouse gas emissions from stationary combustion (e. g. natural gas, heating oil), mobile combustion (fuel for own and leased vehicles) and direct fugitive emissions (e. g. refrigerants, methane).

#### Scope 2:

Indirect greenhouse gas emissions from purchased electricity and district heating. Both the market-based and the location-based methods were used to calculate Scope 2 emissions.

GRI designation	Key performance indicators	2023	2022
Energy	Energy consumption by energy source <sup>6</sup> Gas and heat (in kWh)	1,964,704	2,008,671
	Electricity consumption (in kWh)	7,306,035	6,836,386
CO <sub>2</sub> emissions	Scope 1 (in metric tons of CO <sub>2</sub> e)	827.63	467.81
	Scope 2 (location-based) (in metric tons of CO <sub>2</sub> e)	3,793.21	2,983.67
	Scope 2 (market-based) (in metric tons of CO <sub>2</sub> e)	1,651.78	2,857.02
	Scopes 1 + 2 (location-based) (in metric tons of CO <sub>2</sub> e)	4,620.85	3,451.48
	Scopes 1 + 2 (market-based) (in metric tons of CO <sub>2</sub> e)	2,479.41	3,324.84

Electricity consumption totaled 7.3 million kWh in the year under review (previous year: 6.8 million kWh). At 469,946 kWh, the year-on-year rise in electricity consumption was relatively small compared with the increase in revenue. At 1.96 million kWh, heating energy consumption was just below the previous year's figure of 2.01 million kWh.

## Waste

The PVA TePla Group uses materials in its production processes that could have a negative impact on the environment if handled improperly. Business activities generate waste, including electronic waste, adhesive residues, solvents, municipal waste, cardboard, paper and packaging materials.

We intend to devise a reduction and closed-loop recycling concept for waste, water and other resources, starting with an end-to-end analysis of the organization's resource consumption. As the relevant performance indicator, the volume of waste generated in the PVA TePla Group each year will be calculated. The aim is to avoid, recycle or at least properly dispose of most of the waste generated during production in order to minimize the negative environmental impact. Waste generated in administrative buildings – for example, paper waste – will likewise be reduced by shifting consumption attitudes and raising employee awareness.

<sup>5</sup> Greenhouse Gas Protocol | (ghgprotocol.org)

<sup>6</sup> Consumption of gasoline, diesel, coolants and other energy sources is negligible, so not reported.

As a rule, the PVA TePla Group aims to select disposal methods that facilitate sustainable, environmentally responsible waste recovery, such as recycling or energy recovery. Where this is not possible, waste is properly disposed of by means such as depositing it in special landfill sites. PVA TePla Group employees are encouraged to separate their waste properly as well as to be mindful in their use of printer paper, packaging, consumables and other items.

We continuously optimize processes and structures to ensure resources are used efficiently and our environmental impact is minimized. Transportation and packaging materials that can be reused are systematically collected and recycled.

When selecting and using materials, technologies and production processes, the PVA TePla Group considers their environmental impact and complies with the applicable regulations. These include the requirements of the European Union's REACH Regulation (Registration, Evaluation, Authorization and Restriction of Chemicals) and Restriction of certain Hazardous Substances (RoHS) Directive. Potentially hazardous materials are replaced by less problematic substances wherever possible.

## Responsibility for our team

Our human resources strategy is guided by our overarching corporate strategy. At the same time, it draws on our corporate values and our cultural understanding. The superordinate objectives of the human resources strategy are determined by the leadership of the Human Resources (HR) corporate function in consultation with the Management Board. Our HR policy is geared toward long-term employment, as lasting working relationships are mutually beneficial both for employees and our company.

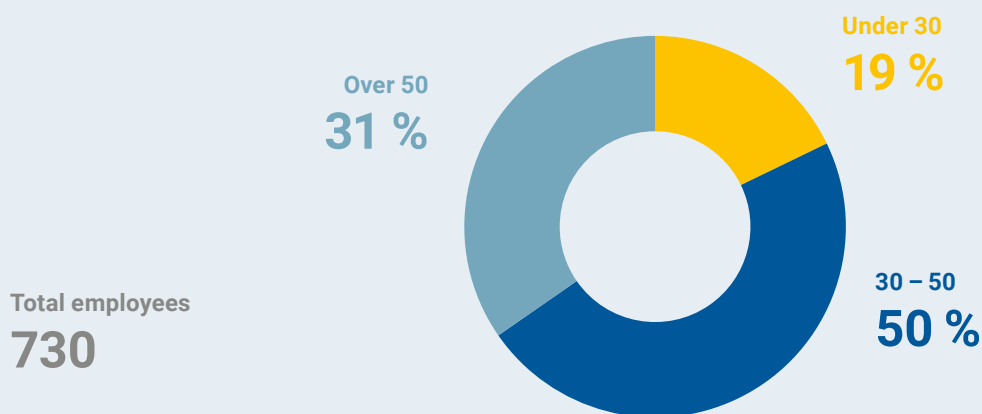
Promoting performance and providing opportunities to exert personal influence are a priority, as are the expansion and long-term development of employees' individual skills and expertise. Additionally, we are conscious that job security is not only important for employees on an individual level, but also for society in general as well as the regions in which we operate. We aim to meet our responsibilities in this respect through forward-looking planning.

For us, diversity and equal opportunities are key concerns. We firmly believe that diversity promotes knowledge sharing, understanding of different perspectives and open cooperation. As a company, we endeavor to foster a culture of diversity and equal opportunities and to prevent all forms of discrimination. We are committed to ensuring that every employee is treated fairly and has equal opportunities and access to career development, irrespective of gender, age, ethnic origin and nationality, religion, sexual orientation or disability. In line with this, we will develop a holistic concept in fiscal year 2024 for promoting diversity and ensuring equal opportunities that goes beyond the previously implemented individual measures.

We took an important step in the 2023 reporting year by defining a specific KPI for measuring diversity. This KPI is used to monitor and document our progress in this area. The aim is to make our data comparable from year to year and to ensure our progress is quantifiable.

Diversity is separated into different dimensions that are relevant to us (demographics, gender, cultural diversity and inclusion). This is supplemented by a team-level KPI encompassing age and gender diversity to record diversity progress also within our working teams. The various dimensions are weighted to produce a diversity metric that we can improve on over time. The initial collection of this KPI is expected to take place in 2024.

## Age structure of PVA TePla Group employees



In 2023, the PVA TePla Group had a total of 730 employees, compared with 613 in 2022. Female employees accounted for 19.5 percent of the workforce in 2023 (previous year: 19.6 percent).

The ratio of women in management positions at the first two organizational levels below the Management Board was 22.4 percent in 2023, up from 17.8 percent a year earlier. These figures include all Group companies. In the reporting year, a new management level directly below the Management Board was created in the PVA TePla AG holding company through the appointment of authorized signatories.

Raising the proportion of women, especially at a manufacturing company, is a long-term process that requires continuous effort. We are ready to rise to this challenge.

The average employee age remained unchanged year on year at 43; the average length of service was 7.7 years, compared with 8.0 years in the previous year. Employee turnover was 4.0 percent in 2023 and 6.4 percent in the previous year.

Key performance indicators	2023	2022
Total employees	730	613
– thereof male in %	80.5	80.4
– thereof female in %	19.5	19.6
Proportion of women in management positions in % (first two organizational levels below the Management Board)	22.4	17.8
Number of trainees	34	34
Average age in years	43	43
Average length of service	7.7	8.0
Employee turnover	4.0	6.4
Work-related accidents involving at least one lost day, ratio*	19.2	14.7

\* Work-related accidents per year per thousand employees

The figures were calculated based on the average headcount, except for average age and age structure. These are based on the number of employees as of the December 31, 2023 reporting date.

## Promotion of employee satisfaction

We are mindful that the satisfaction of our employees has a considerable influence on their performance and length of service as well as the company's success. This is why we strive to engender a high level of employee satisfaction in order to pave the way for enduring loyalty and cooperation. We aim to keep the employee turnover rate as low as possible and maintain a stable average length of service. We offer our employees exciting areas of work as well as flexible working time models, including flextime and working time accounts, remote working and many other benefits.

To achieve our corporate strategy objectives, we seek to provide competitive compensation and benefits packages, which we review on an ongoing basis.

In addition, we lend our employees an attractive working environment and support in the shape of numerous benefits and services. This all helps boost our employees' satisfaction.

We fine-tuned our plans for enhancing employee satisfaction in fiscal year 2023 and intend to build on this in 2024. An important step will be the medium-term introduction of an appropriate KPI to systematically record our employees' satisfaction, as this will enable us to monitor and document trends in this area. Based on the findings of employee surveys, we will implement measures to selectively improve the working environment and working conditions.

### Benefits at our locations in Germany:

- Flexible working hours
- Remote working
- "JobRad" cycle scheme
- Bonus payments
- Subsidized canteen\*
- Long-service bonuses
- Company physician\*
- Shopping benefits in the form of employee discounts
- Development opportunities
- Company events
- Fitness center\*
- Health care

\* not at all locations

As part of our sustainability strategy, the existing programs are being reviewed and harmonized from an international perspective.

## Occupational health and safety

Taking action to protect our employees' health and boost their performance is second nature to us as a responsible company. We aim to keep the number of accidents and days lost due to illness as low as possible.

To ensure our employees have a safe working environment, we have an occupational health and safety management system. It is based on the respective legal requirements applicable in the countries where we operate. The minimum requirement for occupational health and safety is compliance with the relevant country-specific legal provisions. Our efforts to promote the health and safety of our employees go beyond this.

Occupational safety requirements differ between the areas of production, service, administration and sales. That is why the PVA TePla Group has implemented measures geared to local conditions, helping ensure that employees are not exposed to hazards at work. These include, for example, the legally mandated fire safety measures in the form of a central fire alarm system, fireproof walls, smoke ventilation systems, sprinkler systems and everyday equipment to make working life easier. The latter comprises protective equipment such as hard hats, safety shoes and safety goggles. In addition, employees at the German locations are covered by group accident insurance.

Our approach to continuously improving our occupational health and safety management system encompasses regular inspections and assessments. These allow us to identify potential risks and weaknesses and take appropriate steps to minimize or eliminate these risks. The purpose of the measures and processes implemented is to guarantee a high degree of safety for the PVA TePla Group's workforce.

Safety briefings for all employees are regularly conducted at all locations. Most of these are held online.

Accidents and cases of illness are recorded and evaluated as a means of measuring occupational health and safety. Our objective is to keep the accident rate not only as low as possible but also below the industry average. To this end, we use as our benchmark the figures reported for German accident insurance in the industrial sector. We also record sick days as part of our occupational health management. Our sickness rate was 5 percent in the year under review.

In 2023, the accident frequency rate per thousand employees was 19.2 (accidents at work involving at least one lost day), compared with 14.7 in the previous year. The last recorded industry average for 2022 was 21.1.<sup>7</sup> As in the previous year, there were no fatal work-related accidents at PVA TePla in fiscal year 2023.

The health of our employees is of the utmost importance to us. We have implemented preventive measures to avoid work-related issues and occupational diseases. This includes paying close attention to workplace ergonomics, which have been further enhanced at many locations in recent years. Our offices are furnished with height-adjustable desks and ergonomic chairs. During the reporting period, we additionally offered first aid courses in cooperation with the German Red Cross to train our employees on how to deal with medical emergencies. We likewise gave our employees the opportunity to participate in driver safety training with the German automobile club, ADAC, in order to safeguard against commuting accidents.

As part of our occupational health management, employees have access to a company physician for general checkups, eye tests, flu and coronavirus booster shots as well as similar services, frequently even in the workplace.

<sup>7</sup> <https://www.dguv.de/de/zahlen-fakten/au-wu-geschehen/au-1000-vollarbeiter/index.jsp>

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In addition, a professionally equipped fitness room is freely available to employees in the company building in Wetttenberg, Germany. At other locations, external options are offered, such as regular use of a basketball court. A PVA Health Day is usually also held at least once a year. At this event, employees can participate in various health promotion programs – covering topics including posture and daytime drowsiness – provided in cooperation with the Techniker Krankenkasse health insurance fund.

### Training and education

We are actively committed to promoting training for junior employees and, in line with our growth strategy, have set ourselves the target of significantly increasing the number of trainees we have. Looking ahead, we will introduce KPIs to measure the success of the strategy. This will allow us to make a meaningful assessment of its effectiveness.

We anticipate a significant increase in training and education spending over the medium term, so that employees always have the skills they need to meet the challenges of an ever-evolving business environment.

To fill the training positions in the various specialist areas, the PVA TePla Group enters into sponsorships with schools and universities at its German locations, offering orientation days and internships for students. Specific training programs have been developed and established to meet our high demand for young talent who have had hands-on training. The PVA TePla Group works with other companies to run these programs. Trainees learn the basics in training workshops before moving on in the second year to in-depth training specific to the PVA TePla Group. At the same time, we cooperate with universities, supporting the training of students and supervising term papers as well as bachelor's, master's and doctoral theses. As part of the PVA TePla Group's training concept, these programs have already been and will be further intensified and supplemented to include, for example, dual work-study courses. To enhance our attractiveness as a training organization, graduates of the various training programs – including the dual work-study courses – are usually offered a permanent position following successful completion of their training.

In 2023, 34 trainees were employed (2022: 34), including work-study students.

Investing in the further education of the existing workforce is likewise crucial to our lasting economic success. The PVA TePla Group offers an array of development opportunities so that employees can fully realize their potential. The training offering covers personal, management, social and professional skills. Employees with relevant experience can participate in suitable further training, enabling them to specialize and take advantage of corresponding career opportunities within the Group. In line with the current corporate strategy, we plan to step up these measures in fiscal year 2024, enhancing the offering with Group-wide concepts and international approaches. By taking these steps, the PVA TePla Group is paving the way for its employees' continuous development and providing them with the requisite skills to take on fresh tasks.

In fiscal year 2023, training and education expenses amounted to EUR 492 thousand, up from EUR 364 thousand a year earlier.

## EU Taxonomy<sup>8</sup>

### 1. Reporting requirements

For fiscal year 2023, nonfinancial undertakings required to prepare nonfinancial reporting in accordance with Articles 19a and 29a of Directive 2013/34/EU of the European Parliament and of the Council (the Accounting Directive) must disclose how and to what extent their activities are associated with economic activities that qualify as environmentally sustainable in accordance with Regulation (EU) 2020/852 of the European Parliament and of the Council and the supplementary delegated acts (hereinafter: the EU Taxonomy Regulation). Under Article 3 of the EU Taxonomy Regulation, an economic activity qualifies as environmentally sustainable “where that economic activity:

- a) contributes substantially to one or more of the environmental objectives set out in Article 9 in accordance with Articles 10 to 16;
- b) does not significantly harm any of the environmental objectives set out in Article 9 in accordance with Article 17;
- c) is carried out in compliance with the minimum safeguards laid down in Article 18; and
- d) complies with technical screening criteria that have been established by the Commission in accordance with Article 10(3), 11(3), 12(2), 13(2), 14(2) or 15(2).” The following environmental objectives are set forth in Article 9:
  1. climate change mitigation (Art. 10),
  2. climate change adaptation (Art. 11),
  3. the sustainable use and protection of water and marine resources (Art. 12),
  4. the transition to a circular economy (Art. 13),
  5. pollution prevention and control (Art. 14), and
  6. the protection and restoration of biodiversity and ecosystems (Art. 15).

For fiscal year 2023, taxonomy eligibility and taxonomy alignment for the two environmental objectives climate change mitigation and climate change adaptation, and taxonomy eligibility for the four other environmental objectives must be reported in accordance with Delegated Regulation 2023/2486 of November 21, 2023 amending Delegated Regulation (EU) 2021/2178. This information must be disclosed based on the respective proportion of turnover (referred to in the consolidated financial statements of the PVA TePla Group as “revenue”), capital expenditure (CapEx) and operating expenditure (OpEx). To avoid double counting, the analysis of turnover and CapEx was primarily conducted in association with the climate change mitigation environmental objective. This was then supplemented by a review of further turnover and CapEx for the climate change adaptation environmental objective. No additional taxonomy-eligible economic activities were identified in the review relating to the climate change adaptation environmental objective.

In accordance with the EU Taxonomy, PVA TePla’s OpEx amounts to around EUR 12,100,000. The expenses included in this denominator are insignificant in relation to the total operating expenses at PVA for the business model, which is why we have refrained from analyzing these expenses and report the taxonomy-eligible portion as zero.

For the purposes of generally assessing taxonomy alignment, we conducted an analysis based on the minimum safeguards requirements. In the year under review, PVA TePla committed no known violations of labor law or human rights, corruption or bribery, tax evasion, competition law or other elements of the Directive relevant to the minimum safeguards. Individual processes for documenting the minimum safeguards still need to be implemented. Consequently, full compliance in accordance with the taxonomy requirements cannot yet be reported.

Since the PVA TePla Group does not pursue any relevant economic activities involving natural gas or nuclear energy, the reporting does not include the tables on non-disclosure of natural gas and nuclear energy activities.

<sup>8</sup> Unaudited component of the combined management report



Nor did the Group pursue any taxonomy-aligned activities to cover its own internal consumption within the meaning of Annex I Section 1.2.3 of Delegated Regulation 2021/2178 in the reporting year.

The wording and requirements of the Taxonomy Regulation and the associated delegated acts are still subject to uncertainties in their interpretation. This combined nonfinancial statement presents their interpretation by the PVA TePla Group's legal representatives.

## 2. Assessment of turnover

First, all economic activities of the PVA TePla Group relevant to external turnover were cross-referenced against the activity descriptions for the six environmental objectives, as set forth in Delegated Regulations (EU) 2021/2139 and 2023/2485 (climate change mitigation and climate change adaptation) and Delegated Regulation (EU) 2023/2486 (the four other environmental objectives), to determine which economic activities are taxonomy-eligible under the EU Taxonomy Regulation in association with the six environmental objectives. The analysis covered the PVA TePla Group's full basis of consolidation.

The economic activities of the PVA TePla Group not covered by Delegated Regulations (EU) 2021/2139 and 2023/2485 (climate change mitigation and climate change adaptation) and Delegated Regulation (EU) 2023/2486 (the four other environmental objectives) do not qualify as taxonomy-eligible.

For the products manufactured by PVA TePla, the assessment of PVA TePla's economic activities and the cross-referencing against the economic activities defined as taxonomy-eligible found that the manufacture of the products does not itself involve any taxonomy-eligible activities within the meaning of the EU Taxonomy Regulation. This is because PVA TePla's equipment and technologies are not covered by the specific economic activity descriptions.

However, as a supplier, the PVA TePla Group supports key manufacturing processes and technological developments of other industrial undertakings with its systems and services.

The systems and types of equipment that the PVA TePla Group manufactures and delivers to its customers can generally be used for the following economic activities:

### Climate change mitigation environmental objective:

- 3.1 Manufacture of renewable energy technologies
- 3.2 Manufacture of equipment for the production and use of hydrogen
- 3.3 Manufacture of low carbon technologies for transport
- 3.4 Manufacture of batteries
- 3.5 Manufacture of energy efficiency equipment for buildings
- 3.6 Manufacture of other low carbon technologies
- 3.18 Manufacture of automotive and mobility components
- 3.21 Manufacturing of aircraft

**Transition to a circular economy environmental objective:**

## 1.2 Manufacture of electrical and electronic equipment

Since these economic activities are not carried out by PVA TePla itself, they do not qualify as taxonomy-eligible economic activities for the company.

However, turnover related to repair orders and replacement parts orders was identified for the new transition to a circular economy environmental objective. These can be allocated to the activities "5.1 Repair, refurbishment and remanufacturing" and "5.2 Sale of spare parts", respectively. Taxonomy alignment was not assessed for the transition to a circular economy environmental objective for 2023.

This means a total taxonomy-eligible turnover of EUR 7,709,092 was identified, of which EUR 7,064,986 was attributable to the "5.2 Sale of spare parts" activity and EUR 644,106 to the "5.1 Repair, refurbishment and remanufacturing" activity.

The denominator for turnover includes revenue in accordance with IAS 1.82 (a), which was taken from the income statement.

**3. Assessment of capital expenditure**

The figures for the denominator for the CapEx KPI were taken from the consolidated financial statements for fiscal year 2023 and comprise property, plant and equipment, and intangible assets, less goodwill.

To compute the numerator for the CapEx KPI, an analysis of the consolidated statement of changes in non-current assets for fiscal year 2023 was carried out. All additions to assets, which were also used to compute the denominator for CapEx, were assessed with regard to taxonomy eligibility and, based on this, for taxonomy alignment for the environmental objectives of climate change mitigation and climate change adaptation. For fiscal year 2023, the assessment identified taxonomy-eligible CapEx associated with the following activities:

**Climate change mitigation environmental objective:**

- 4.1 Electricity generation using solar photovoltaic technology
- 6.4 Operation of personal mobility devices, cycle logistics
- 6.5 Transport by motorbikes, passenger cars and light commercial vehicles
- 7.1 Construction of new buildings
- 7.2 Renovation of existing buildings
- 7.4 Installation, maintenance and repair of charging stations for electric vehicles in buildings
- 7.7 Acquisition and ownership of buildings
- 8.1 Data processing, hosting and related activities

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## Transition to a circular economy environmental objective:

### 4.1 Manufacture of electrical and electronic equipment

The extension of the EU Taxonomy Regulation to include the four new environmental objectives, together with our capital expenditure on photovoltaic systems and electric vehicle charging stations, as well as the construction of new buildings, resulted in significantly higher taxonomy-eligible CapEx being identified this year than in the previous year. It rose from around EUR 3,797,000 in 2022 to approximately EUR 9,760,444 in 2023.

In 2023, we invested in the installation of photovoltaic systems in Wetttemberg and Jena, Germany (activity 4.1). However, since the systems' compliance with DNSH criteria could not be assured, this could not be classified as taxonomy-aligned CapEx. The same applies to the additions related to cycle leasing under activity 6.4, to the renovation spending at our location in Taiwan (activity 7.2) and to the installation of electric vehicle charging stations in Wetttemberg, Germany (activity 7.4). In these cases, compliance with the DNSH criteria similarly could not be assured, so the CapEx was classified as non-taxonomy-aligned.

PVA TePla's vehicle fleet, which is covered by "6.5 Transport by motorbikes, passenger cars and light commercial vehicles", underwent a detailed assessment. According to the Commission Notice on the interpretation of certain legal provisions of the Disclosures Delegated Act under Article 8 of EU Taxonomy Regulation on the reporting of taxonomy-eligible economic activities and assets (2022/C 385/01), all vehicles, including those with combustion engines, qualify as taxonomy-eligible. This means that PVA TePla's vehicle fleet is a taxonomy-eligible asset category in terms of CapEx. The assessment of the taxonomy alignment of this asset category – based on whether screening criteria for determining a substantial contribution to climate change mitigation were met – found that only a small proportion of the vehicle fleet met the technical screening criteria. However, since compliance with the DNSH criteria could not be assured, no taxonomy-aligned CapEx could be reported. The vehicles were assessed at line item level.

In 2023, a large proportion of our taxonomy-eligible CapEx was attributable to the new construction of two production halls at our locations in Wetttemberg, Germany, and in Italy (activity 7.1). However, since the DNSH criteria likewise could not be assured in this case, the CapEx was classified as non-taxonomy-eligible. Additionally, we were unable to confirm the taxonomy alignment of our rented buildings and housing, as we do not yet fully meet the minimum safeguarding requirements (activity 7.7).

In the year under review, activity 8.1 primarily involved CapEx relating to servers and data centers. Since the technical screening criteria for these two categories could not be unequivocally assured, the CapEx was classified as non-taxonomy-aligned.

The assessment did not take into account any capital expenditure for parts of a plan to expand taxonomy-aligned economic activities or to allow taxonomy-eligible economic activities to become taxonomy-aligned (referred to as CapEx plans). This is because PVA TePla's CapEx planning does not yet include evaluation in respect of DNSH criteria or compliance with minimum safeguarding requirements.

## Proportion of revenue from products or services associated with taxonomy-aligned economic activities – disclosure covering 2023

Financial year 2023	2023			Substantial contribution criteria					
	Code(a)	Turnover	Proportion of revenue 2023	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity
Economic activities (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	EUR thousand		%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL
<b>A. Taxonomy-eligible activities</b>									
<b>A.1 Environmentally sustainable activities (taxonomy-aligned)</b>									
Turnover of environmentally sustainable activities (taxonomy-aligned) (A.1)			0 %	0 %	0 %	0 %	0 %	0 %	0 %
Of which enabling		0	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Of which transitional		0	0 %	0 %					
<b>A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)</b>									
Repair, refurbishment and remanufacturing	CE 5.1	644	0.20 %	N/EL	N/EL	N/EL	N/EL	EL	N/EL
Sale of spare parts	CE 5.2	7,065	2.70 %	N/EL	N/EL	N/EL	N/EL	EL	N/EL
Turnover of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		7,709	2.90 %	0 %	0 %	0 %	0 %	2.90 %	0 %
<b>A. Turnover of taxonomy-eligible activities (A.1 + A.2)</b>		<b>7,709</b>	<b>2.90 %</b>	<b>0 %</b>	<b>0 %</b>	<b>0 %</b>	<b>0 %</b>	<b>2.90 %</b>	<b>0 %</b>
<b>B. Taxonomy-non-eligible activities</b>									
Turnover of taxonomy-non-eligible activities		255,737	97 %						
<b>Total</b>		<b>263,446</b>	<b>100 %</b>						

(a) The code constitutes the abbreviation of the relevant objective to which the economic activity is eligible to make a substantial contribution, as well as the section number of the activity in the relevant Annex covering the objective, i. e.

- Climate change mitigation (CCM)
- Climate change adaptation (CCA)
- Water (WTR)
- Circular economy (CE)
- Pollution prevention and control (PPC)
- Biodiversity and ecosystems (BIO)

Y Yes, taxonomy-eligible and taxonomy-aligned activity with the relevant environmental objective  
N No, taxonomy-eligible and non-taxonomy-aligned activity with the relevant environmental objective  
N/EL Not eligible, non-taxonomy-eligible activity for the relevant environmental objective  
EL Eligible, taxonomy-eligible activity for the relevant environmental objective

DNSH criteria ("does not significantly harm")									
Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Minimum safeguards	Proportion of taxonomy-aligned (A.1.) or eligible (A.2.) turnover, 2022	Category enabling activity	Category transitional activity
(11)	(12)	(13)	(14)	(1)	(16)	(17)	(18)	(19)	(20)
Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
							0%		
							0%	E	
							0%		T

							0%		
							0%		
							0%		
							0%		

## Template: Proportion of CapEx from products or services associated with taxonomy-aligned economic activities – disclosure covering 2023

Financial year 2023	2023			Substantial contribution criteria					
	Code(a)	CapEx	Proportion of CapEx 2023	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity
Economic activities (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	EUR thousand		%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL
<b>A. Taxonomy-eligible activities</b>									
<b>A.1 Environmentally sustainable activities (taxonomy-aligned)</b>									
CapEx of environmentally sustainable activities (taxonomy-aligned) (A.1)			0 %	0 %	0 %	0 %	0 %	0 %	0 %
Of which enabling activities		0	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Of which transitional activities		0	0 %	0 %					
<b>A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)</b>									
Electricity generation using solar photovoltaic technology	CCM 4.1	282	1.90 %	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Operation of personal mobility devices, cycle logistics	CCM 6.4	38	0.30 %	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Transport by motorbikes, passenger cars and light commercial vehicles	CCM 6.5	494	3.40 %	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Construction of new buildings	CCM 7.1/CE 3.1	7,078	48.50 %	EL	N/EL	N/EL	N/EL	EL	N/EL
Renovation of existing buildings	CCM 7.2/CE 3.2	54	0.40 %	EL	N/EL	N/EL	N/EL	EL	N/EL
Installation, maintenance and repair of charging stations for electric vehicles in buildings	CCM 7.4	49	0.30 %	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Acquisition and ownership of buildings	CCM 7.7	1,215	8.30 %	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Data processing, hosting and related activities	CCM 8.1	155	1.10 %	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Manufacture of electrical and electronic equipment	CE 1.2	394	2.70 %	N/EL	N/EL	N/EL	N/EL	EL	N/EL
CapEx of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		9,760	66.80 %	64.10 %	0 %	0 %	0 %	2.70 %	0 %
A. CapEx of taxonomy-eligible activities (A.1 + A.2)		9,760	66.80 %	64.10 %	0 %	0 %	0 %	2.70 %	0 %
<b>B. Taxonomy-non-eligible activities</b>									
CapEx of taxonomy-non-eligible activities		4,841	33.2 %						
Total		14,602	100 %						

DNSH criteria ("does not significantly harm")									
Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Minimum safeguards	Proportion of taxonomy-aligned (A.1.) or eligible (A.2.) CapEx, 2022	Category enabling activity	Category transitional activity
(11)	(12)	(13)	(14)	(1)	(16)	(17)	(18)	(19)	(20)
Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
							0		
							0	E	
							0		T

	0 %
	0.36 %
	2.69 %
	0 %
	0 %
	0 %
	18.99 %
	4.59 %
	0 %
	27 %

### Template: Proportion of OpEx from products or services associated with taxonomy-aligned economic activities – disclosure covering 2023

Financial year 2023	2023			Substantial contribution criteria					
	Code(a)	OpEx	Proportion of OpEx 2023	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity
Economic activities (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	EUR thousand		%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL
<b>A. Taxonomy-eligible activities</b>									
<b>A.1 Environmentally sustainable activities (taxonomy-aligned)</b>									
OpEx of environmentally sustainable activities (taxonomy-aligned) (A.1)			0 %	0 %	0 %	0 %	0 %	0 %	0 %
Of which enabling			0 %	0 %	0 %	0 %	0 %	0 %	0 %
Of which transitional			0 %	0 %					
<b>A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)</b>									
OpEx of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)	–		0 %	0 %	0 %	0 %	0 %	0 %	0 %
A. OpEx of taxonomy-eligible activities (A.1 + A.2)	–		0 %	0 %	0 %	0 %	0 %	0 %	0 %
<b>B. Taxonomy-non-eligible activities</b>									
OpEx of taxonomy-non-eligible activities		12,100	100 %						
Total		12,100	100 %						





## Macroeconomic environment and sector development

The macroeconomic and sector-specific conditions primarily concern PVA TePla AG's subsidiaries. However, since PVA TePla AG generates the bulk of its income from profit transfer agreements with its subsidiaries, these conditions are not only relevant for the PVA TePla Group as a whole, but also for the holding company as a stock corporation under German law (AG).

The Kiel Institute Economic Outlook<sup>9</sup> published by the Kiel Institute for the World Economy (IfW) shows that – although economic expansion was moderate – the global economy fared better than expected in 2023, even faced with the inflation shock and the massive tightening of monetary policy. Inflation is now falling rapidly and monetary policymakers are likely to start cutting interest rates as early as the first half of 2024. However, an economic upturn is not yet on the horizon. The high degree of uncertainty surrounding general economic conditions and the lack of fiscal policy stimulus are curbing growth in advanced economies. In China, economic momentum remains lackluster due to structural problems. The outlook for the coming year foresees a 2.8 percent rise in global production (measured at purchasing power parities) compared with 3.1 percent in 2023. The global economy is expected to recover in 2025, growing by 3.2 percent. This forecast remains largely unchanged compared with the fall outlook. According to experts, unemployment in advanced economies is likely to rise slightly in the near future but remain at a historically low level. The underlying upward price trend has significantly eased recently and it is anticipated that inflation rates will settle close to target levels again by 2025.

Industrial production and global trade remain sluggish. Despite a slight rise in the summer, global industrial production in September 2023 was barely any higher than at the beginning of 2022. The low level of the manufacturing purchasing managers' indices points to momentum remaining weak for the time being. Global trade is significantly down on the prior-year level. Nor are there any clear signs of a recovery here. The Kiel Trade Indicator, which estimates global trade flows based on real-time data from container shipping, has recently declined again. According to the IfW, this reflects the ongoing challenges and uncertainties facing the global economy.

### Expected recovery in the eurozone: forecasts point to gradual growth

Following its strong recovery after the pandemic, the eurozone economy is currently in a phase of sluggish growth. The economy has stagnated as a result of the higher cost of living curbing consumption, deteriorating financing conditions caused by the rapid tightening of monetary policy and weak external economic stimuli.

As the year progresses, the European economy should gradually regain momentum. On the one hand, real wages are rising again due to accelerated wage growth and declining inflation, which is favoring a revival in private consumption. On the other, financing conditions are expected to improve with the anticipated easing of monetary policy. The external economic environment should also brighten. Nevertheless, it is anticipated that GDP growth will remain relatively weak at 0.8 percent in 2024 after 0.5 percent in 2023, only accelerating to 1.5 percent in 2025.

Inflation is expected to fall from an average of 5.4 percent in 2023 to 2.2 percent (2024) and 1.9 percent (2025), thus closing in on the European Central Bank's inflation target.

<sup>9</sup> [https://www.ifw-kiel.de/fileadmin/Dateiverwaltung/IfW-Publications/fis-import/820a0dbb-65bf-40a5-be32-b3d3ce95f262-KKB\\_109\\_2023-Q4\\_Welt\\_EN.pdf](https://www.ifw-kiel.de/fileadmin/Dateiverwaltung/IfW-Publications/fis-import/820a0dbb-65bf-40a5-be32-b3d3ce95f262-KKB_109_2023-Q4_Welt_EN.pdf)

## Structural challenges weigh on China's economy

Despite an unexpectedly strong third-quarter increase of 1.3 percent in gross domestic product, the economic outlook for China remains subdued. The crisis on the real estate market is continuing, accompanied by declining investments and negative financial impacts. Worsening labor market opportunities, high youth unemployment and increased uncertainty are weighing on consumer confidence. At the same time, falling revenues and high communal debt are curbing public investment. The country's central government is endeavoring to improve the situation through debt restructuring programs and has already implemented various measures to stimulate the economy – so far with little apparent success. China's overall lower growth rate trend is expected to persist, also due to negative demographic developments and changes in trade policy. GDP growth is likely to fall from 5.4 percent in 2023 to 4.7 percent in 2024 and 4.6 percent in 2025.

## A soft landing in the USA

Although gross domestic product in the USA rose by a surprising 1.3 percent in the third quarter of 2023, the country's economic momentum is forecast to weaken noticeably. A recession is no longer expected. Yet the subdued corporate mood and weakening labor market trend are pointing to a slowdown. Positive signals are coming from the strong growth in corporate investment, which is being supported by government programs. Private consumption will probably increase further as real wages rise and the savings accrued during the COVID-19 crisis are utilized. To date, the restrictive monetary policy has had a particularly noticeable impact on residential construction. The recession in that sector is projected to end in the current year, partly because mortgage interest rates appear to have peaked. Experts put GDP growth in 2023 at 2.4 percent, with growth of 1.5 percent and 2.0 percent expected for 2024 and 2025, respectively. The unemployment rate is likely to rise slightly to 4.4 percent during the forecast period, while the inflation rate should gradually approach the Fed's target.

## Industry development

World Semiconductor Trade Statistics (WSTS)<sup>10</sup> has revised its forecast for the global semiconductor market. The estimated market valuation has been updated to USD 520 billion for 2023, corresponding to a year-on-year decline of 9.4 percent.

Despite this contraction, there are signs of some degree of recovery in certain segments. According to estimates, discrete semiconductors – especially power semiconductors – saw year-on-year growth of 5.8 percent.

Regional differences characterize the picture for 2023, with only the European market forecast to have grown by 5.9 percent. Declines are likely in the other regions, including the Americas (– 6.1 percent), the Asia-Pacific region (– 14.4 percent) and Japan (– 2.0 percent).

Despite the challenges in 2023, a robust recovery is expected in 2024, with estimated growth of 13.1 percent and a market valuation of USD 588 billion. This growth will be driven primarily by the memory sector, which is forecast to expand by more than 40 percent year on year. Other main segments are also expected to record single-digit growth, and all regions – particularly the Americas and Asia-Pacific – look set for further growth.

<sup>10</sup> [https://www.ifw-kiel.de/fileadmin/Dateiverwaltung/IfW-Publications/fis-import/820a0dbb-65bf-40a5-be32-b3d3ce95f262-KKB\\_109\\_2023-Q4\\_Welt\\_EN.pdf](https://www.ifw-kiel.de/fileadmin/Dateiverwaltung/IfW-Publications/fis-import/820a0dbb-65bf-40a5-be32-b3d3ce95f262-KKB_109_2023-Q4_Welt_EN.pdf)

According to SEMI<sup>11</sup> in its most recent quarterly World Fab Forecast Report, global semiconductor capacity increased by a projected 5.5 percent to 29.6 million wafers per month (wpm) in 2023. This growth is being driven by capacity expansions in areas such as generative AI applications and high-performance computing (HPC), as well as by the recovery in the final demand for chips.

Global semiconductor capacity is anticipated to increase by a further 6.4 percent in 2024, reaching the 30 million wpm mark for the first time. This forecast is based on rising market demand, higher investment in chip factories and a broader recovery across the industry.

<sup>11</sup> <https://semi.org/en/news-media-press-releases/semi-press-releases/global-semiconductor-capacity-projected-to-reach-record-high-30-million-wafers-per-month-in-2024-semi-reports>

## Business development of the Group

2023 was another successful year for PVA TePla. We significantly increased revenue thanks to forward-looking procurement planning and inventory building despite tight supply and logistics chains. We ended fiscal year 2023 with a 28-percent increase in revenue to EUR 263.4 million and an EBITDA margin of 15.8 percent. In particular, an improved gross margin and economies of scale contributed to the positive earnings performance.

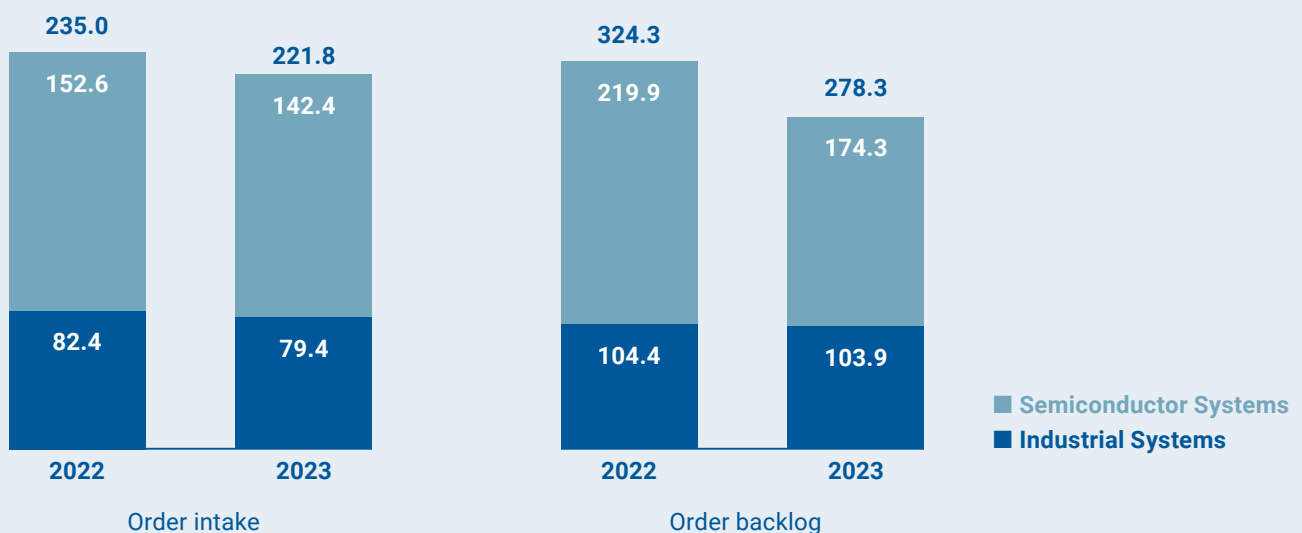
In our forecast for fiscal year 2023, we had anticipated revenue in the range of EUR 240 million to EUR 260 million and operating earnings before interest, taxes, depreciation and amortization (EBITDA) of between EUR 36 million and EUR 40 million. We exceeded this forecast.

### Key performance indicators of the PVA TePla Group

in EUR million	2022	2023	Change
Revenue	205.2	263.4	+ 28.4 %
Gross profit	59.1	77.5	+ 31.1 %
EBITDA	30.0	41.5	+ 38.3 %
EBITDA margin (%)	14.6	15.8	+ 1.2 pp
EBIT	25.1	34.4	+ 37.1 %
EBIT margin (%)	12.2	13.0	+ 0.8 pp
Profit before taxes	23.8	34.1	+ 43.3 %
Consolidated net profit for the period	17.7	24.4	+ 37.9 %

## Orders

Order intake and order backlog (Comparison 2022–2023, EUR million)



The order backlog of the PVA TePla Group fell to EUR 278.3 million from the very high level of EUR 324.3 million on the prior-year reporting date. The main reasons for this 14.2-percent decline are the high number of orders executed in the last calendar quarter of fiscal year 2023 and a changed order mix with shorter lead times. Overall, demand remains stable and the persistently high order backlog continues to ensure the good visibility of the business. The Semiconductor Systems operating segment accounted for EUR 174.3 million (previous year: EUR 219.9 million) and Industrial Systems for EUR 103.9 million (previous year: EUR 104.4 million) of the order backlog at the reporting date.

At EUR 221.8 million, order intake was 5.6 percent below the previous year's level of EUR 235.0 million, with a book-to-bill ratio (i.e. the ratio of incoming orders to revenue) of 0.84.

In the Semiconductor Systems operating segment, order intake amounted to EUR 142.4 million (previous year: EUR 152.6 million) and mainly comprised orders from the semiconductor industry for metrology and crystal growing systems.

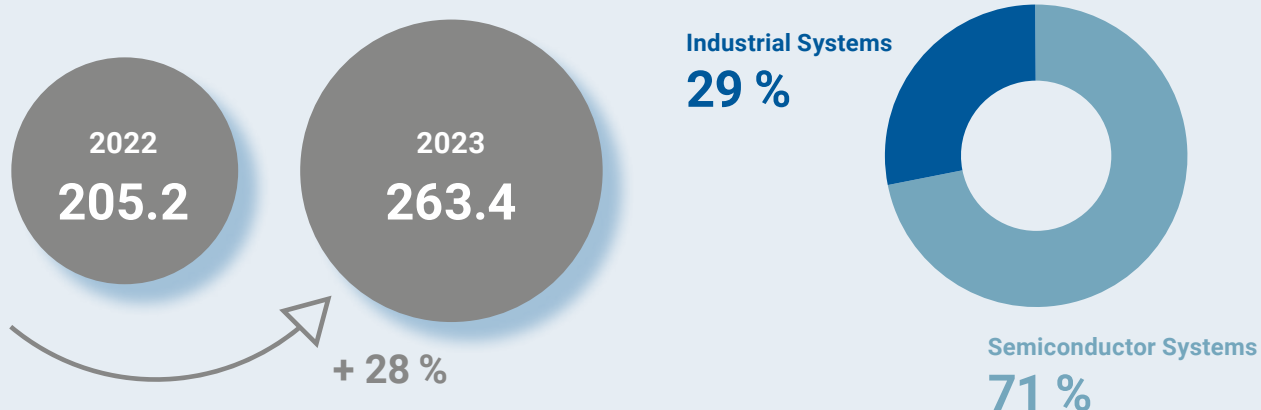
Order intake in the Industrial Systems operating segment amounted to EUR 79.4 million (previous year: EUR 82.4 million). The orders relate to technologies such as those used in the aerospace, medical technology and optical industries.

## Revenue and results of operations

Overall, we generated consolidated revenue of EUR 263.4 million in fiscal year 2023, which corresponds to growth of around 28 percent compared with EUR 205.2 million in the previous reporting period.

### Consolidated revenue

Jan. 1 to Dec. 31 in EUR million



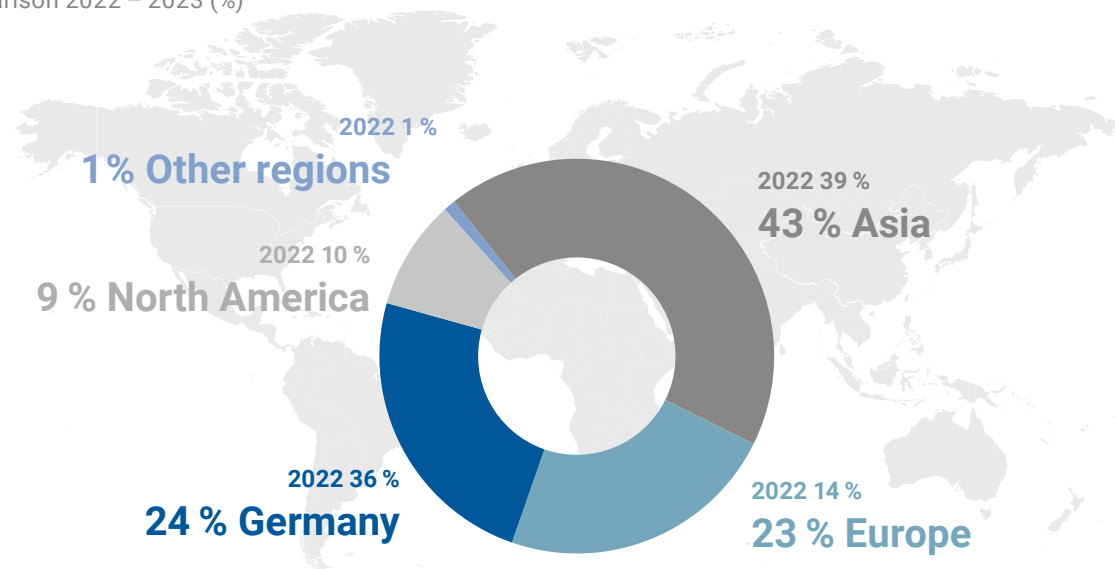
The Semiconductor Systems operating segment accounted for EUR 186.1 million, or – as in the previous year – 71 percent of revenue, and the Industrial Systems operating segment for EUR 77.4 million, or 29 percent (previous year: 29 percent). One customer based in Germany and one customer based in the Netherlands each contributed more than 10 percent to consolidated revenue in the reporting period.

### Asia remains largest sales market; strong growth in Europe

From a regional perspective, the Asian market was again the largest sales market, contributing 43 percent of revenue (previous year: 39 percent). We recorded significant growth in Europe (excluding Germany), where we generated 23 percent (previous year: 14 percent) of revenue. Germany accounted for 24 percent (previous year: 36 percent). We achieved 9 percent of revenue in North America (previous year: 10 percent), while the other regions contributed 1 percent (previous year: 1 percent).

### Contribution to revenue worldwide

Comparison 2022 – 2023 (%)



### Gross margin improved despite higher material and production costs

The cost of sales amounted to EUR 185.9 million, which corresponds to a rise of 27 percent compared with the previous year's figure of EUR 146.2 million. This was slightly lower than the growth in consolidated revenue. The gross margin increased accordingly to 29.4 percent, 0.6 percentage points (pp) higher than the previous year's figure of 28.8 percent. This improvement set in over the course of the year, but especially in the second half, and was due to factors such as the elimination of effects from customer-related development costs that were included the previous year.

### Selling expense ratio decreases; higher administrative and R&D expenses as planned

Selling expenses in the reporting period came to EUR 19.1 million, compared with EUR 16.1 million in fiscal year 2022. This increase of 18.6 percent was disproportionately low compared with the revenue growth of 28.4 percent. The selling expense ratio improved by 0.6 pp, from 7.9 percent in 2022 to 7.3 percent. The absolute increase resulted mainly from the further international expansion of the sales structure and in part from the higher business volume.

Administrative expenses rose from EUR 11.5 million to EUR 15.5 million. The ratio of administrative expenses to revenue was 5.9 percent, compared with 5.6 percent a year earlier. This increase of 0.3 pp is primarily due to the expansion of the personnel infrastructure in view of the anticipated growth and regulatory requirements, as well as to higher consulting and recruitment costs.

Research and development (R&D) expenses, which mainly comprise personnel expenses and the cost of materials as well as the depreciation and amortization of property, plant and equipment, rose to EUR 9.5 million from EUR 6.5 million, EUR 3.0 million higher year on year. The R&D ratio increased moderately from 3.2 percent to 3.6 percent. Development activities not included in the R&D expenses were invoiced to customers on a project basis. The growth in R&D expenditure is particularly due to diversification of the company's technological positioning in line with its strategy. Besides focusing on the semiconductor business, which is being driven by advancing digitalization, the strategy includes tapping into new fields of application in the areas of mobility and decarbonization. Detailed information about our research and development activities during the reporting period can be found in the "Fundamentals of the Group – Research and development" section.

At EUR 4.8 million, other operating expenses were below the previous year's figure of EUR 5.2 million, while other operating income rose from EUR 5.4 million to EUR 5.8 million in the reporting year. One reason for this development was the higher income from exchange rate differences compared with the previous year. This was offset by lower income from grants.

Taken together, the aforementioned effects led to a marked improvement in the key financial indicators: Earnings before interest, taxes, depreciation and amortization (EBITDA) amounted to EUR 41.5 million, a substantial increase of more than 38 percent compared with the previous year's figure of EUR 30.0 million. The EBITDA margin of 15.8 percent was thus also significantly higher than the already high level of 14.6 percent in the previous year.

Adjusted for depreciation and amortization, the operating result (EBIT) came to EUR 34.4 million compared with EUR 25.1 million in 2022. This corresponds to an EBIT margin of 13.0 percent, an improvement of 0.8 pp from 12.2 percent a year earlier.

Financial result amounted to EUR – 0.3 million, down from EUR – 1.3 million the previous year. The improvement primarily stemmed from cash-effective write-downs of financial assets in 2022, which served to mitigate negative interest rates and diversify risk.

As a net result, profit before taxes came to EUR 34.1 million, up 43 percent from the previous year's figure of EUR 23.8 million. Due to the slightly higher tax rate of 28 percent (previous year: 26 percent), current tax expense increased from EUR 6.1 million in 2022 to EUR 9.7 million. Consequently, consolidated net result for the period rose from EUR 17.7 million to EUR 24.4 million. This corresponds to earnings per share of EUR 1.12 compared with EUR 0.81 the previous year. There was no change in the number of shares outstanding in the reporting year.



## Business development of the operating segments

### Key performance indicators of the operating segments

EUR '000	Semiconductor Systems			Industrial Systems		
	2022	2023	+/-	2022	2023	+/-
Sales revenues	145,745	186,070	+ 27.7 %	59,480	77,376	+ 30.1 %
EBITDA	25,396	33,975	+ 33.8 %	9,067	13,117	+ 44.7 %
EBIT	22,874	30,937	+ 35.3 %	7,797	10,278	+ 31.8 %

### Costs of the holding company

2022 (EUR '000)	2023 (EUR '000)	+/- (%)
5,583	6,836	+ 22.4 %

To prepare the organization for the growth we anticipate, the holding company has taken targeted measures that include expanding the workforce as well as investing in IT infrastructure and consulting. These measures contributed to the 22.4-percent increase in the holding company's costs to EUR 6.8 million.

Sales revenues in the Semiconductor Systems operating segment rose to EUR 186.1 million in fiscal year 2023, a year-on-year increase of 27.7 percent from EUR 145.7 million the previous year. As in 2022, revenue growth was driven by executing the high order backlog for crystal growing systems for the semiconductor wafer industry as well as for metrology systems. Earnings before interest, taxes, depreciation and amortization (EBITDA) increased by 33.8 percent, from EUR 25.4 million to EUR 34.0 million. The EBITDA margin was 18.3 percent (previous year: 17.4 percent). Adjusted for depreciation and amortization, PVA TePla's Semiconductor Systems operating segment posted operating result (EBIT) of EUR 30.9 million compared with EUR 22.9 million a year earlier.

With growth of 30.1 percent, the Industrial Systems operating segment recorded an increase in sales revenues from EUR 59.5 million in the previous year to EUR 77.4 million. As in 2022, high-temperature heat treatment systems were the main driver of the operating segment's growth. Earnings before interest, taxes, depreciation and amortization (EBITDA) increased considerably by 44.7 percent, from EUR 9.1 million to EUR 13.1 million. As a proportion of revenue, the EBITDA margin was 17.0 percent compared with 15.2 percent a year earlier. At EUR 10.3 million, the operating segment's operating result (EBIT) was also significantly higher than the previous year's figure of EUR 7.8 million.

## Financial position

### Principles and objectives of financial management

In the context of its financial management activities, PVA TePla ensures that the Group has sufficient liquid funds at all times, manages the Group's liquidity and reduces financial risk to the extent that this is economically expedient. The PVA TePla Group does not engage in any speculative forward transactions.

Financial activities are based on financial planning that covers all the main Group companies. Liquidity needs are determined on the basis of cash flow planning, which is updated on a rolling basis.

The financing and liquidity risk is presented in the "Risks and opportunities" section.

### Reporting on financial instruments

The PVA TePla Group uses derivative financial instruments as economic hedges to manage the risk from interest rate and currency fluctuations. These serve to reduce earnings volatility caused by interest rate and currency risk. The fair values were determined on the basis of the interest rates and exchange rates on the reporting date.

### Liquidity

Cash flow from operating activities amounted to EUR 2.0 million in fiscal year 2023. In connection with the execution of the high order backlog and the associated need for high inventories, there were year-on-year increases in contract assets (EUR + 10.1 million), trade receivables (EUR + 6.7 million) and inventories (EUR + 19.6 million).

Cash flow from operating activities in the Vacuum Systems and Crystal Growing Systems business units fluctuates widely from year to year due to the project structure and payment terms of the orders. Substantial prepayments are made at the start of projects, whereas a negative cash flow arises during their execution until full payment (except for a small residual amount) is made upon delivery.

Cash flow from investing activities totaled EUR – 10.8 million (previous year: EUR – 21.3 million) and resulted almost entirely from investments in intangible assets and property, plant and equipment in the context of various infrastructure expansion projects at the sites in Wetztenberg, Germany, and in Italy.

Cash flow from financing activities came to EUR 7.3 million (previous year: EUR – 1.3 million) and, in addition to the utilization of short- and long-term credit lines in the amount of EUR 13.4 million, mainly comprised repayments of financial liabilities of EUR – 4.4 million and lease liabilities of EUR – 1.3 million (previous year: EUR – 1.1 million). Interest payments totaled EUR – 0.2 million (previous year: EUR – 0.2 million).

With cash and cash equivalents of EUR 14.0 million (taking account of exchange rate changes), term deposits of EUR 6.2 million and as yet unutilized credit lines of EUR 27.9 million, the PVA TePla Group had available liquid funds of EUR 48.1 million as of the 2023 reporting date. As of December 31, 2023, the PVA TePla Group had a positive net financial position (balance of cash and cash equivalents and current and non-current financial liabilities) of EUR 0.4 million (previous year: EUR 16.4 million).

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## Net assets

Total assets increased by around 5 percent to EUR 305.4 million (December 31, 2022: EUR 290.3 million).

Current assets rose by a slight EUR 5.6 million, from EUR 217.6 million to EUR 223.2 million. Within current assets, there were increases in inventories (EUR + 19.6 million) and contract assets (EUR + 10.1 million), i. e. construction contracts recognized according to the stage of completion (POC) method. By contrast, receivables and other financial assets fell by EUR 16.6 million to EUR 57.0 million, which is mainly attributable to the sale of current financial investments of EUR 18 million. Cash, cash equivalents and term deposits decreased by EUR 7.1 million to EUR 20.1 million.

Within non-current assets, intangible assets fell by EUR 1.9 million to EUR 18.6 million (previous year: EUR 20.5 million) as a result of the depreciation and amortization of purchased licenses and other intangible assets. The value of property, plant and equipment increased from EUR 34.0 million to EUR 41.7 million. This is primarily attributable to the investments made in buildings and capacities.

Current liabilities decreased from EUR 160.7 million to EUR 138.1 million. This was mainly due to lower contract liabilities of EUR 95.2 million (previous year: EUR 113.5 million), which include prepayments for products and services as well as for customer-specific construction contracts that are to be recognized using the POC method, the amount of which exceeded the contract costs incurred (including profit shares).

At EUR 39.9 million, non-current liabilities were above the level at the prior-year reporting date (December 31, 2022: EUR 25.6 million) due to the utilization of a long-term credit line in the context of long-term investment activities.

Equity increased to EUR 127.4 million (December 31, 2022: EUR 104.1 million); the equity ratio was 41.7 percent (December 31, 2022: 35.9 percent).

## Short report on the single-entity financial statements of PVA TePla AG

The management report and Group management report of PVA TePla AG have been combined. The following explanations are based on the German GAAP annual financial statements of PVA TePla AG.

### Management

The operating result is the key performance indicator for managing the company.

### Economic situation of PVA TePla AG

The company provides services for other Group companies; the revenue of PVA TePla AG derives mainly from service fees received from subsidiaries. During fiscal year 2023, the company employed an average of 60 people (2022: 48).

PVA TePla AG recorded year-on-year revenue growth of around 26.8 percent to EUR 15.3 million in fiscal year 2023. At EUR 16.2 million, the operating performance was also above the previous year's level (EUR 12.1 million). Other operating income increased by 59.6 percent to EUR 2.9 million and the cost of materials amounted to EUR 0.9 million, up from EUR 0.1 million a year earlier. Personnel expenses rose by 31.3 percent to EUR 7.5 million. At EUR 1.1 million, write-downs were slightly above the previous year's level (EUR 1.0 million). Other operating expenses rose by 41.1 percent to EUR 13.0 million, primarily due to higher energy prices as well as to currency effects.

Operating result (EBIT) came to EUR – 3.5 million, compared with EUR – 2.1 million in the previous year. This was below the forecast for 2023, which had envisioned a slight increase in operating result. Non-operating result rose from EUR 20.4 million to EUR 24.9 million. This is due to the profit and loss transfer agreements with subsidiaries. Following the deduction of taxes, PVA TePla AG reported net result of EUR 14.7 million for fiscal year 2023 (previous year: EUR 12.9 million). After offsetting against the existing retained earnings carried forward, the distributable profit amounts to EUR 71.0 million, which is to be carried forward to new account.

### Net assets and financial position

Total assets declined from EUR 153.2 million to EUR 144.1 million in the reporting period.

Non-current assets mainly comprise property, plant and equipment, primarily land and buildings with a carrying amount of EUR 18.6 million as of the reporting date (previous year: EUR 15.3 million), and financial assets of EUR 37.8 million (previous year: EUR 36.4 million), primarily comprising shares in affiliated companies and securities. The increase in financial assets results from loans to affiliated companies of EUR 1.4 million (previous year: EUR 0).

Current assets of EUR 84.8 million (previous year: EUR 99.7 million) mainly consist of receivables, notably from affiliated companies, and cash in hand. The securities of EUR 18.9 million reported in the previous year were sold in the reporting period, which means that the portfolio amounted to EUR 0 as of the reporting date.

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The equity and liabilities side of the balance sheet is mainly accounted for by equity of EUR 94.9 million, liabilities to banks of EUR 13.2 million (previous year: EUR 0) and liabilities to affiliated companies of EUR 21.3 million (previous year: EUR 50.6 million). The increase in liabilities to banks is related to the long-term financing of investments in buildings and infrastructure. The significant decrease in liabilities to affiliated companies resulted primarily from a cash pooling agreement.

At EUR 0.3 million, tax provisions were also significantly lower than the previous year's figure of EUR 7.7 million due to tax prepayments already made.

As of the reporting date, the equity ratio was 66 percent (2022: 52 percent).

## Opportunities and risks

As the company acts as the holding company of the PVA TePla Group, the risks and opportunities of PVA TePla AG are essentially the same as those of the Group. In this respect, please see the "Risks and opportunities" section in the combined management report.

## Appropriation of profit

As of December 31, 2023, the German GAAP single-entity financial statements of PVA TePla AG reported net result of EUR 14.7 million (previous year: net result of EUR 12.9 million) and a net retained profit of EUR 71.0 million (previous year: EUR 56.2 million). The Management Board and Supervisory Board propose that the net retained profit reported in the 2023 annual financial statements be carried forward in the same amount to new account. No dividend is to be distributed for fiscal year 2023. No withdrawals were made from capital reserves or retained earnings.

## Forecast

Due to the nature of the company's business activities, its future development is closely linked to the development of the Group. We expect the company's operating result to improve slightly in 2024. Please see the Group forecast for a discussion of economic and market-specific developments.

## Risks and opportunities

The PVA TePla Group's policy on risks and opportunities aims to ensure sustainable growth and increase the company's value by managing appropriate and avoiding inappropriate risks. Risk management is an integral aspect of business strategy planning and implementation.

The various business areas of the PVA TePla Group are exposed to a large number of risks closely associated with business decision making. Risks are defined as events or actions that could hinder attainment of the company's targets or have a negative impact on profitability. At the same time, it is crucial to identify and leverage opportunities to strengthen the company's competitiveness. Risks and opportunities are not offset against one another, but assessed and treated separately.

### Risk and opportunity strategy

In the PVA TePla Group's core areas of activity, we consciously take appropriate, manageable and controllable risks if these are expected to generate a commensurate return or are unavoidable. The internal reporting system is designed to let us monitor these risks in greater detail during the course of business. If necessary, we deploy flanking processes to transfer risks to other risk carriers. These measures include, in particular, taking out suitable insurance (e. g. for potential loss events or liability risks), outsourcing risks to suppliers and maintaining a generally low level of vertical integration. In this way, we reduce our level of risk, ensure the flexibility of our production processes and cost structures as well as avoid or minimize potential losses. As far as possible, we avoid other risks that are unconnected with our core or support processes.

The PVA TePla Group's risk policy is set by the Management Board. Responsibilities are defined for all relevant risks and opportunities. The hierarchy level to which responsibility is assigned depends on the significance of the respective risk or opportunity. Based on a regular risk inventory and assessment, our risk strategies comprise the following categories: identifying and monitoring risks; avoiding, transferring, mitigating or accepting risks. We evaluate our opportunity strategy in the course of our regular strategy processes as well as on the basis of opportunity inventories and assessments for our respective business areas. The opportunities described are not necessarily the only ones available to us. Moreover, our assessments of opportunities are subject to change because the Group, our markets and technologies are constantly evolving.

Most of the risks described would have a significant negative impact on net assets, financial position and results of operations if they were to occur. PVA TePla may be exposed to other risks that are not yet known or are not considered to be material at the current point in time.

### Principles and objectives of the internal control system (ICS) and risk management system (RMS)<sup>12</sup>

The objective of our risk management system (RMS) is to identify, assess and actively manage the financial and non-financial risks associated with our business at an early stage. Group-wide risk management extends to all companies included in the basis of consolidation. The system is designed to comply with the applicable statutory requirements and relevant industry standards.

<sup>12</sup> Unaudited component of the combined management report

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In line with the company's organizational principles, risk management has been decentralized to PVA TePla AG, its subsidiaries and the business processes. On this basis, the Management Board members and respective managing directors are responsible for key risk management tasks. A risk manual that includes procedures for appropriate and forward-looking risk management is available to the managing directors and other employees for this purpose. The manual regulates the specific risk management processes. It covers all risk-related activities and measures, i.e. the identification, assessment, management, reporting and monitoring of risks. Taking account of defined risk categories, risks in the business areas, operating units and central functions are identified and assessed in terms of the probability of their occurrence and the potential extent of the damage that could result.

Early identification of risks is a key element of the risk management system intended to provide the Management Board in particular with up-to-date information about the PVA TePla Group's risk situation at all times. It is also the task of those responsible to devise and, where necessary, initiate measures to prevent, mitigate and hedge against risks. Those responsible monitor on a rotating basis the material risks and countermeasures that have been implemented. The risk reports are summarized and analyzed regularly by a central unit for review and discussion by the Management Board and Supervisory Board. This regular reporting is supplemented by an internal Group procedure governing the immediate ad hoc reporting obligation for any unforeseen risks that may arise. Generally performed on a quarterly basis, public reporting is likewise supplemented by ad hoc reporting where necessary to address relevant issues in a timely manner.

In addition, the risk management system includes an annual risk inventory in which the risks relevant to the PVA TePla Group are recorded and assessed for their relevance and potential impact. Measures to mitigate the risks identified are defined and their implementation monitored. The risk management system enables the Management Board to identify and assess material risks at an early stage and to initiate any necessary countermeasures. It also includes a compliance management system aligned with the company's risk situation.

The appropriateness, efficiency and effectiveness of the risk management system is monitored by the Management Board at regular intervals and adjusted wherever necessary. The Management Board and Supervisory Board regularly define areas of the PVA TePla Group that are to be audited internally. External companies are engaged for these audits as required.

Besides being subject to the controls implemented for the organization overall, the individual functional areas are monitored by the respective managers. The Management Board and Supervisory Board define internal auditing activities, which are supported by external service providers. This is intended to ensure the independent monitoring of business processes and controls. Internal audit findings are reported regularly to the Management Board and Supervisory Board as well as to the relevant specialist units in order to identify and implement process improvements. Additionally, the internal audit function is responsible for independently reviewing the functioning, appropriateness and effectiveness of the Group ICS. To this end, the internal audit function has extensive information and audit rights.

Opportunity management is similarly an integral element of Group management activities. The individual areas of opportunity are identified and assessed as part of the strategy process. As with risks, potential opportunities are identified and managed decentrally. Regular reporting is used to recognize at an early stage whether market and competitive developments or internal Group events might make a reassessment necessary. As is the case for risks, public reporting on opportunity management is generally performed on a quarterly basis and likewise supplemented by ad hoc reporting wherever necessary to communicate relevant issues in a timely manner.

The Management Board has overall responsibility for the RMS and ICS. At its meetings, the Management Board regularly assesses the company-wide risk and opportunity situation, discusses the results of the internal control process and, once a year, prepares a general statement on the appropriateness and effectiveness of the ICS and RMS. On this basis, the Management Board assesses the appropriateness and effectiveness of the ICS and RMS at the end of each fiscal year. This information is also reported to the Supervisory Board's Audit Committee, which is regularly involved in all ICS and RMS activities. In particular, it monitors accounting and the accounting process as well as the appropriateness and effectiveness of the ICS, RMS and internal audit system.

Nevertheless, there are inherent limitations to the effectiveness of any risk management and control system. Even if deemed appropriate and effective, no system can guarantee, for example, that all risks that actually arise will be identified beforehand or that any breach of process can be ruled out under all circumstances.

The ICS and RMS are integral components of our company and are supplemented by a compliance management system (CMS) aligned with the specific risks and requirements of our business. Our CMS is based on a comprehensive Code of Conduct that provides guidance for all employees.

Key elements of our CMS include measures to prevent compliance violations, mechanisms for the early identification of potential violations as well as clear-cut processes for responding to and remedying compliance violations. We attach great importance to raising awareness among our employees in order to ensure that they are familiar with the applicable rules and actively support compliance.

Examples of our CMS measures include compliance training, a whistleblower system for the anonymous reporting of compliance violations, internal audits to review compliance with policies and procedures, coupled with clearly defined sanction mechanisms in the event of misconduct.

Our CMS is subject to continuous review and adaptation to new business-specific risks and changing statutory requirements. Moreover, compliance risk management findings are harnessed in refining the system. We aim to ensure that our CMS is at all times effective and appropriate so that we can maintain our company's integrity and ethical standards.

As of the reporting date, the Management Board had no evidence that either the ICS or RMS were inadequate or ineffective in their entirety.

### **Accounting-related internal control and risk management system**

The risks identified in relation to accounting processes are examined and assessed notably for their potential impact on disclosures in the respective financial reports. Here, the aim is to provide key information at an early stage about any possible changes in the fair value of assets and liabilities as well as impending impairments, enabling assessment of the need to recognize and reverse provisions.

The methods and measures implemented are intended to safeguard the company's assets and increase operational efficiency. PVA TePla's internal control system (ICS) helps guarantee the reliability of the accounting and reporting system as well as compliance with internal guidelines, legislation and the company's articles of association. Measures include the adequate separation of functions, appropriate control intervals and non-overlapping responsibilities, ensuring that tasks, expertise and accountability are allocated accordingly. Moreover, controls have been incorporated into workflows.



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The main components of these structures and controls are strict compliance with the dual control principle in all key accounting processes, defined access rights within the IT systems, random checks of employees at all levels by their respective line managers and a certified quality management system that sets standards for the organizational and operational structure – including key operational processes. The aforementioned key aspects of the internal control system are applied in all functional areas. In the accounting process, implementing organizational and operational controls as part of the internal control system secures the integrity of the data used to prepare the financial reports.

The Group accounting and consolidation process is based on the decentralized preparation of financial statements by the individual Group companies. Prepared in accordance with IFRS standards, these financial statements are transmitted in uniform data formats that have been defined for Group-wide use. The central accounting system is connected to the ERP system via comprehensive interfaces.

The entire process is managed and controlled by the central Group Accounting and Controlling function, which also verifies the content and form of the data. All employees involved in the process receive regular training. In addition, as part of a risk-oriented audit approach, the auditor reviews the effectiveness of those parts of the ICS that are relevant to financial reporting.

Lastly, it should be noted that neither an ICS nor a risk management system can provide absolute certainty that the related objectives will be achieved. As with all discretionary decisions, those connected with establishing appropriate systems may be fundamentally flawed. In individual cases, controls may not work due to simple errors or mistakes, or changes in environment variables may be recognized too late despite the corresponding monitoring.

## **Risk reporting relating to the use of financial instruments**

Risks associated with financial instruments are explained in detail in note 19 “Additional disclosures on financial instruments” in the notes to the consolidated financial statements. The PVA TePla Group uses derivative financial instruments as economic hedges to manage the risk from interest rate and currency fluctuations. These serve to reduce earnings volatility caused by interest rate and currency risk. As of December 31, 2023, corresponding currency hedges exist in the form of forward exchange contracts. These are limited exclusively to USD hedging transactions with a nominal value of USD 6.5 million.

As for receivables and other financial assets, there are inherent credit risks for which impairment losses are recognized.

The use of other financial instruments does not result in any material risks in respect of the Group’s net assets, financial position and results of operations.

## Risk assessment

The probability of risks occurring is classified by one of four levels: “very low”, “low”, “high” and “very high”. Based on percentage ranges for the probability of occurrence, these levels can be refined as required with information about the time periods in which the risk typically occurs.

When assessing the potential extent of losses, we apply the same four levels of “very low”, “low”, “high” and “very high”. Each level is assigned threshold values describing the possible extent of losses in euros as well as their potential impact on EBITDA.

Nonquantifiable risks, such as reputational damage, are assessed in qualitative terms.

	Probability of occurrence			
	Very low > 0 % – 5 %	Low > 5 % – 20 %	High > 20 % – 50 %	Very high > 50 % – 100 %
Economic relevance	Very high over EUR 16 million		Trade barriers	
	High EUR 6 – 16 million	Sales markets		Information technology
	Low EUR 2 – 6 million			Procurement markets
	Very low up to EUR 2 million			

## Risks and opportunities of future business activities

The PVA TePla Group differentiates between business risks and opportunities and operational risks and opportunities. These represent the key areas for the Group. Risks and opportunities are not found in equal measure in all areas. The following pages provide a net presentation of the risks to the company.

In this report, we discuss the most important financial and nonfinancial risks and opportunities that could affect the company’s target achievement in 2024 and beyond. They include risks that are classified as “high” or “very high” in terms of both the potential extent of losses they could cause and the probability of their occurrence. In addition, we report on material risks presented in the previous year’s report if our assessment of these risks has changed.

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## Business risks and opportunities

### Impact of Russia's war on Ukraine

Russia attacked Ukraine on February 24, 2022, and has been engaged in a war of conquest since that time. This has resulted in millions of refugees and the large-scale destruction of Ukraine's cities and infrastructure. As neither Russia nor Ukraine are relevant sales or procurement markets for PVA TePla's products, the war has had no significant direct economic impact. Nevertheless, it is resulting in indirect risks which are described in the "Economic, political and geopolitical environment" section below.

### Impact of the COVID-19 pandemic

In the reporting year, COVID-19 was endemic in most of the markets relevant to PVA TePla and no longer had an appreciable impact on economic activities.

### Trade barriers

As an international corporate group with a large export rate, the PVA TePla Group is fundamentally vulnerable to trade barriers, customs sanctions or general trade and export bans. Due to geopolitical developments, we believe that measures are likely to be tightened in these areas.

Risks such as customs disputes, export controls and bans on advanced technologies as well as trade restrictions – particularly between the USA and China – could hamper world trade and slow global economic growth. These developments could have an impact on foreign demand in countries such as China, which in turn could have an adverse effect on gross domestic product. This could result in a deterioration in market conditions for PVA TePla, which could affect the company's net assets, financial position and results of operations.

The PVA TePla Group reviews the need for export licenses on an ongoing basis and, in the case of high-risk orders, hedges the political risk by means of capital goods credit insurance where necessary.

The PVA TePla Group responds to this potential development by establishing, operating and expanding regional subsidiaries in key markets. In this way, alternative supply chains can be created in the respective countries and alternative strategies developed to deal with any trade barriers that may arise. At the same time, the fact that our customers are establishing new production sites outside China's sphere of influence could offer PVA TePla some compensation for any decline in business with China.

### Economic, political and geopolitical environment

Geopolitical risks increased in fiscal year 2023 and included especially the ongoing war in Ukraine, the dispute concerning Taiwan and tensions in the Middle East. This could have a negative impact on economic development and companies' ability to plan. Possible price increases and shortages of energy and raw materials as a result of the Ukraine conflict could lead to a rise in production costs for companies such as PVA TePla. In addition, an escalation of one or more conflicts could result in a global economic downturn, which would have a negative impact on customers' willingness to invest and hence on PVA TePla's revenue and orders.

The cyclical nature of the semiconductor market is highly relevant for PVA TePla. In order to minimize this risk, PVA TePla AG has continued to diversify its business. Other contributors to revenue, such as those in the Industrial Systems markets, tend to reflect the global economy. However, if certain markets were to stop growing and we were unsuccessful in adapting production and cost structures to the changed market environment, this could have a negative impact on PVA TePla AG's revenue and income situation.

The strategy of low vertical integration enables the company to react quickly to change and maintain a high degree of flexibility. Efforts in recent years to develop and offer proprietary processes for manufacturing high-quality materials have strengthened the PVA TePla Group's market position. Moreover, the Group performs high-quality contract work such as plasma treatment, high-vacuum brazing, diffusion bonding and heat treatment of components, which see increasing demand at times of low investment.

## **Sustainability**

The increasing ESG requirements stipulated by governments, investors and customers coupled with rising risk premiums for financing carbon-intensive technologies may result in additional costs or have an impact on the demand situation. Growing regulatory requirements as well as voluntary commitments in the form of in-house sustainability and climate change mitigation targets can harbor additional liability risks. We address these risks by way of a clearly defined sustainability strategy.

In addition to measures relating to the sustainable development of our social working environment and governance, we are focusing on efforts to decarbonize our value chain as well as on our contribution to saving energy and enhancing efficiency. On the product side, we contribute to our customers' innovations with the technologies we have developed such as crystal growing based on silicon carbide, metrology and diffusion bonding. The elevated sustainability requirements may result in many new market opportunities for the PVA TePla Group's process and systems technology.

In the reporting year, no material risks were identified in connection with the company's own business activities, its business relationships or products and services that would be highly likely to have a serious negative impact on sustainability aspects now or in the future.

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## Operational risks and opportunities

### Information technology risk

Digital technologies are the bedrock of our product and business portfolio. However, the growing importance of digitalization in products and processes also increases the potential risks. Global threats such as cybercrime, industrial espionage and sabotage may jeopardize the integrity of our products and processes and compromise the confidentiality, availability and reliability of data. The main risk scenarios for us are the failure of our central IT systems, data leaks and cyberattacks aimed at sabotaging our systems or blackmailing the company. Likewise, data breaches and noncompliance with the General Data Protection Regulation (GDPR) may have a negative impact. To counter these risks, we invest in expanding and maintaining our IT infrastructure as well as in implementing security measures such as redundant systems and an IT security control center. In addition, we raise our employees' awareness of IT security issues and work closely with an external data protection officer to ensure GDPR compliance.

### Sales market risk

The PVA TePla Group's earnings and profit depend on the different products and services of the company's two operating segments: Semiconductor Systems and Industrial Systems. Sales market risks arise due to market and economic fluctuations, particularly in the semiconductor industry. To mitigate these risks, we seek to diversify our product portfolio and generate recurring revenue. In addition, our presence in various markets coupled with our role as a development and technology partner provide a sound basis for responding to potential market fluctuations.

### Procurement market risk

The performance of our operating units depends on effective supply chain management and forward-looking HR deployment scheduling.

Procurement-side risks, such as rising raw material prices and supply disruptions, are minimized by way of a strategic purchasing policy and inventories. In contrast to the previous year, there were no bottlenecks in the reporting year because inventories of key components had been increased.

The PVA TePla Group mitigates warranty risks by conducting extensive quality controls and collaborating with qualified suppliers. Reinforcing the company's supplier base by including new suppliers and acquiring specialist manufacturers contributes to greater reliability in procurement.

The performance of our operating units depends on reliable and effective supply chain management for components and materials as well as forward-looking HR deployment scheduling.

### Human resources risk

The performance of the PVA TePla Group is based to a large extent on its employees and their expertise. That means qualified employees are a key element in our company's success. There is a general risk that the company will be unable to recruit an adequate number of suitably qualified employees or to sufficiently develop and retain the qualified employees it already has. For instance, gaps in the succession of specialist and management employees could restrict our growth, thus resulting in a negative impact on our net assets, financial position and results of operations.

Compared with the previous year, we see our company exposed to an increased risk in this respect. To actively mitigate this risk, the PVA TePla Group has taken measures that include establishing a dedicated working group to deal specifically with employee recruitment, retention and development.

### **Legal risk**

The PVA TePla Group's international business activities harbor legal risks, particularly in the areas of contract design, taxation and litigation. To minimize these risks, the company uses standard contractual terms and contracts are reviewed in-house or by external legal advisors. A specialized network of advisors provides support in cross-border matters.

Liability and loss risks are limited by contractual agreements and insurance cover, which is adjusted on an ongoing basis. Natural hazards are also covered by insurance; their impact on operations could be mitigated by temporary relocation.

As of the end of February 2024, there were no material litigations involving the holding company PVA TePla AG or its subsidiaries.

### **Research and development risk**

Innovation is at the heart of PVA TePla AG's corporate strategy and enables the company to set itself apart from its competitors by achieving technological and digital excellence coupled with a high level of quality control. There is a latent risk of delays or budget overruns, but ongoing R&D projects are monitored continuously and realigned if necessary in order to minimize risks. Decisions on investments in new technologies are made with care so as to leverage market opportunities proactively and tap into new market areas at an early stage.

### **Financial risk**

PVA TePla is exposed to various financial risks such as liquidity, default, taxation, currency, customs and market price risks. Liquidity planning is complex due to the highly individual nature of orders and payment terms. Forward exchange contracts are used to minimize currency risks and hedge financial transactions.

The terms and conditions of a syndicated loan oblige PVA TePla to comply with certain financial covenants relating to gross debt ratio and equity ratio. If these financial covenants are breached, the lenders have the right to terminate the loan and demand its repayment. Renegotiating the terms and conditions of the loan could lead to an adverse development in financing costs. Compliance with these terms and conditions is monitored continuously.

There are no other significant financial and liquidity risks at the present time.

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## Summary of the risk situation

In fiscal year 2023, the overall risk situation of the PVA TePla Group did not change significantly compared with the previous fiscal year. The dominant risks in the reporting period stemmed from the areas of human resources, IT and potential trade barriers. In particular, risks relating to human resources have increased compared with the previous year against the backdrop of a shortage of skilled labor in Germany. Risks in connection with the coronavirus pandemic were no longer relevant in the reporting period.

The probability of occurrence and economic relevance of other risks such as legal, financial, sales market as well as research and development risks have remained largely stable. We consider procurement market risks to be lower than in the previous year. On the basis of the current risk assessment, no risks exist that might jeopardize the company's continued existence as a going concern.

From today's perspective and supported by an analysis of the Group's risk-bearing capacity, no risks exist that might jeopardize the company's continued existence as a going concern.

## Opportunities for the Group's growth and earnings-driven development

PVA TePla has implemented a large number of measures and business initiatives to create the conditions for the Group's onward growth and earnings-driven development. In particular, significant opportunities are to be found in developing new business areas outside of digitalization – especially in the areas of mobility and decarbonization – as well as in the strategic approach marking the shift from product developer to system developer.

Working with our customers, we consistently seek to develop new technologies, products and solutions and to improve existing options. To this end, we invest in research and development. More efficient and/or more cost-effective technologies, products and solutions could positively influence our strategic growth and profitability targets.

The urgency of limiting CO<sub>2</sub> emissions means that new forms of mobility and energy are indispensable. Part of the EU Green Deal, which aims to achieve carbon neutrality by 2050, the decarbonization target set at the Paris Climate conference in 2015 calls for the more rapid expansion of renewable energies. Our solutions facilitate efficiency improvements across the energy industry – in the generation, transmission, storage and use of electrical energy. This has the potential to further boost demand for our products.

Technological development and capacity expansion in the semiconductor market will remain key short- and medium-term economic drivers for PVA TePla's Semiconductor Systems operating segment in its role as an equipment supplier. Examples of this can already be seen in the expansion of 5G technology and the ongoing progression of the Internet of Things (IoT). Moreover, the accelerated or broader market penetration of digital products offers added potential.

Economic development in our main sales markets may result in opportunities that go beyond the growth assumed in our forecast. This situation could arise, for example, as a result of the de-escalation of political conflicts, the end of (economic) wars or the unexpectedly fast resolution of trade disputes. Such developments could reduce market turbulence and risks to the PVA TePla Group to a lower level than expected and described above.

In addition, selective acquisitions complement our strategy. They serve to both expand the company's own technology base and optimize the level of vertical integration, as well as to strengthen market access and the customer base. Our main acquisition targets are companies with complementary technologies or operations in other areas of the production process.

The listing of PVA TePla AG in the Prime Standard segment of the regulated market ensures transparency for German and international shareholders as well as for the general public. It gives the company access to growth and investment capital as and when necessary. Compliance with transparency requirements helps to strengthen customers' confidence in the company's investment decisions and enables it to stand out positively from its competitors. Moreover, PVA TePla's stock market listing signals the company's independent status. The annual submission by the Supervisory Board and Management Board of the declaration of conformity with the German Corporate Governance Code reaffirms to shareholders and other stakeholders that the company is committed to active control, transparency, confidence building and good corporate governance.

Overall, the Management Board sees attractive business opportunities for PVA TePla AG on both the German and international markets.

## General statement on the risk and opportunity situation

PVA TePla AG's risk strategy reflects the unique characteristics of a specialty mechanical engineering company with international operations and is deliberately focused on opportunities. Given the existing management and control measures, none of the individual risks is considered capable of jeopardizing the company's continued existence as a going concern, nor is a cumulative effect likely if several individual risks were to occur at the same time. From today's perspective, no such risks are foreseeable in the future. Nevertheless, the risks discussed may have a negative impact on the company's net assets, financial position and results of operations as well as its performance.

In particular, the growing internationalization of business activities and the strained personnel situation due to the shortage of skilled labor in Germany are resulting in significant changes to the risk situation. We are closely monitoring developments in the economic conflict between the USA and China. Trade barriers and export restrictions may have a significant impact on our business success. However, the (re-)establishment of semiconductor production capacities may also hold considerable sales opportunities for equipment suppliers such as PVA TePla in the medium to long term. Additionally, the newly targeted mobility and decarbonization industries hold out future business opportunities. Overall, the Management Board assumes that the Group's risk situation at the end of February 2024 had not changed significantly compared with the previous year.

PVA TePla AG could benefit from sustained demand for systems for the semiconductor industry, its metrology products as well as from new business areas. These opportunities are reinforced by the company's solid financial position, its long-standing transparency thanks to its stock market listing and its position as an established independent manufacturer. Overall, this situation provides PVA TePla AG with new opportunities on the global market.

The company's risk-bearing capacity is ensured at all times thanks to its existing and potential financial reserves, solid balance sheet and sophisticated insurance concept. In our view, the business opportunities outweigh the potential risks.

In the reporting year, no material risks were identified in connection with the company's own business activities, its business relationships or products and services that would be highly likely to have a serious negative impact on sustainability aspects now or in the future.



## Forecast

The International Monetary Fund (IMF)<sup>13</sup> is forecasting global economic growth of 3.1 percent for the full year 2024. This is a reflection of the comparatively weak growth in 2023. The IMF was more optimistic for 2024 at the start of the year than it was in fall 2023. However, a slight year-on-year loss in momentum of 0.1 percentage points is expected for the developed economies because both the US and Japanese economies are likely to grow at a slower pace. GDP growth of 0.9 percent is forecast for the eurozone. The German economy is again likely to see below-average growth of 0.5 percent. As in the past two years, the pace of growth in the emerging and developing economies is put at 4.1 percent. Growth in China (+ 4.6 percent) and India (+ 6.5 percent) is expected to be slightly slower than in 2023. The same applies to Latin America (+ 1.9 percent). By contrast, the IMF anticipates stronger momentum in the Middle East and Central Asia (+ 2.9 percent) and Sub-Saharan Africa (+ 3.8 percent) regions.

Downside risks to the forecast include geopolitical risks, in particular the escalation of the Middle East conflict and the ongoing war in Ukraine, as well as weather-related shocks, a sustained rise in core inflation and a slowdown in growth in China. On the other hand, the recovery of the Chinese economy could be faster, generating positive international growth impetus. A stronger upturn might also be expected if inflation falls faster than anticipated and the central banks are quicker to cut interest rates.

Global sales of semiconductor manufacturing equipment are forecast to rise again in 2024 after a temporary decline in 2023, according to the market analysts at SEMI<sup>14</sup>. Growth is likely to be driven by investments in capacity expansions, new factory projects as well as high demand for advanced technologies and solutions. In particular, the wafer factory equipment segment is expected to grow moderately, while the back-end equipment segment should see a recovery. On this basis, sales of semiconductor manufacturing equipment are predicted to reach a new high of around USD 124 billion in 2025.

We are convinced that our innovative technologies, production capacities and strong sales network will enable us to leverage the full market potential generated by the growing demand for semiconductors and power electronics in electromobility as well as by the shift to renewable energy and the general trend toward digitalization in the years ahead. PVA TePla's medium-term goal is to almost double its revenue to around EUR 500 million within the next five years. To this end, the Group has also set its sights on acquisitions to selectively supplement its existing technology portfolio.

We expect moderate growth in the current and next fiscal years. Based on the solid order backlog, we are targeting consolidated revenue in the range of EUR 270 million to EUR 290 million and operating earnings before interest, taxes, depreciation and amortization (EBITDA) in the range of EUR 47 million to EUR 51 million for fiscal year 2024. At the same time, the company's strategic realignment is intended to further reduce its dependence on large orders. This will be reflected in a lower book-to-bill ratio. The background to this is that, for example, metrology solutions – i. e. measuring and testing systems based on acoustic, optical or chemical methods – can be produced with significantly shorter lead times than a complex, customer-specific furnace concept for the production of new materials or a crystal growing system tailored to customers' specific needs.

<sup>13</sup> Source: IMF World Economic Outlook Update January 2024

<sup>14</sup> <https://semi.org/en/news-media-press-releases/semi-press-releases/global-total-semiconductor-equipment-sales-forecast-to-reach-record-%24124-billion-in-2025-semi-reports>

## General statement by the Management Board

We are very satisfied with our performance in fiscal year 2023. The repeated attainment of our financial targets at a time of challenging geopolitical and economic conditions is proof positive that our strategic realignment has succeeded in placing our business activities on a sustainable footing. Thanks to our diversified business model, we have positioned the company in promising growth markets and reduced our dependence on the performance of individual sectors. Of particular note is the dynamic rise in demand from sectors outside the traditional semiconductor segment as well as in the field of metrology.

In the current year, PVA TePla will further strengthen its focus on the future growth areas identified and is planning extensive investments in infrastructure, innovation and human resources in this connection.

In the opinion of the Management Board, taking account of expected future developments, it is highly unlikely that the individual risks or combination of individual risks described in the “Risks and opportunities” section will jeopardize the company’s continued existence as a going concern.

On this basis, we are confident that we will be able to achieve both our financial and nonfinancial targets for 2024 and our medium-term targets for 2028.

## Takeover-related disclosures (sections 289a and 315a of the HGB)

### Composition of subscribed capital

As of December 31, 2023, the subscribed capital of PVA TePla AG in the amount of EUR 21,749,988 is composed of 21,749,988 no-par value bearer shares with a notional interest in the share capital of EUR 1.00 each.

### Restrictions on voting rights or the transfer of shares

The Management Board is not aware of any restrictions on voting rights or the transfer of shares, especially restrictions that might arise from agreements between shareholders.

### Direct or indirect participation in the share capital that exceeds ten percent of the voting rights

According to the notifications available to the company, no shareholder held more than ten percent of the share capital and voting rights in PVA TePla AG as of the editorial deadline for this report in February 2024.

### Holders of shares with special rights

There were, and are still, no shares in PVA TePla AG with special rights conferring powers of control.

### Type of voting rights control for employee participation

There are no employees participating in the share capital of PVA TePla AG who cannot exercise their control rights directly.

### Statutory provisions and provisions of the Articles of Association concerning the appointment and dismissal of members of the Management Board and amendments to the Articles of Association

- a) Appointment of Management Board members: The Management Board members of PVA TePla AG are appointed pursuant to section 84 of the German Stock Corporation Act (AktG) and section 6 (2) of the Articles of Association of PVA TePla AG. This stipulates the following: "(2): The appointment of members of the Management Board, the revocation of their appointment and the conclusion, amendment and termination of employment contracts with members of the Management Board shall be carried out by the Supervisory Board. The same applies to the appointment of a member of the Management Board as Chairman or Spokesman of the Management Board."
- b) Dismissal of Management Board members: The Supervisory Board may revoke the appointment of a member of the Management Board and the appointment of the Chair of the Management Board pursuant to section 84 (4) sentence 1 of the AktG if there is good cause. Pursuant to section 84 (4) sentence 2 of the AktG, such cause shall include, in particular, gross breach of duty, an inability to manage the company properly or the withdrawal of confidence by the Annual General Meeting, unless confidence has been withdrawn for evidently unobjective reasons. The revocation of appointment to the Management Board shall be effective pursuant to section 84 (3) sentence 4 of the AktG until its ineffectiveness is legally established.

c) Amendment to the company's Articles of Association: Pursuant to section 179 (1) sentence 1 of the AktG, any amendment to the Articles of Association shall require a resolution by the Annual General Meeting. However, pursuant to section 179 (1) sentence 2 of the AktG, the Supervisory Board is authorized to resolve on amendments to the Articles of Association that only affect the wording. Pursuant to section 179 (2) sentence 1 of the AktG, any resolution by the Annual General Meeting in respect of an amendment to the Articles of Association shall require a majority of at least three quarters of the share capital represented at the meeting. Pursuant to section 179 (2) sentence 2 of the AktG, the Articles of Association may stipulate a different capital majority, which must be larger for a change in the object of the company, as well as further requirements. On the basis of this statutory authorization, section 14 (3) sentence 3 of the Articles of Association stipulates that resolutions to amend the company's Articles of Association shall be passed by a simple majority of the votes cast, to the extent that this is legally permissible.

#### **Authority of the Management Board to issue or buy back shares**

The Management Board is authorized, with the approval of the Supervisory Board, to increase the share capital of PVA TePla AG by up to a maximum of EUR 5,437,497 by issuing up to 5,437,497 new no-par value bearer shares against cash and/or noncash contributions on one or more occasions until June 22, 2027 (Authorized Capital 2022/I).

Additionally, the share capital of PVA TePla AG is contingently increased by up to EUR 5,437,497.00 by issuing up to 5,437,497 new no-par value bearer shares (Contingent Capital 2022/I). Contingent Capital 2022/I serves exclusively to grant new shares to the holders of conversion rights or options issued by PVA TePla AG or by companies that are directly or indirectly wholly owned by PVA TePla AG in accordance with the authorization resolution of the Annual General Meeting on June 23, 2022.

By resolution of the Annual General Meeting on June 28, 2023, the Management Board was authorized to acquire treasury shares in a volume of up to 10 percent of its share capital existing at the date of the resolution or – if this value is lower – at the date the authorization is exercised. Valid until June 27, 2028, the authorization may be exercised in full or in partial amounts, on one or several occasions, for one or several purposes by the company, by its Group companies or by third parties for its or their account. At the discretion of the Management Board, shares will be acquired on the stock market or by means of a public purchase offer to all shareholders. The consideration paid per share for the acquisition of shares on the stock market (excluding incidental acquisition costs) may not be more than 10 percent higher or lower than the average closing price on the three stock exchange trading days preceding the date on which the obligation to purchase the shares was entered into.

#### **Material agreements subject to a change of control as the result of a takeover bid**

The current master agreements with the banks assume an essentially unchanged shareholder structure and provide for renegotiation in the event of a change of control or, in one case, a right of termination on the part of the bank. The provisions for a publicly funded research and development project also include a special right of termination on the part of the funding body in the event of a change of control. Moreover, a change of control also results in a right of termination for individual customer orders. There are no other agreements that are subject to a change of control as the result of a takeover bid.

#### **Compensation agreements in the event of a takeover bid**

In the event of a change of control, the members of the Management Board will receive benefits that shall not exceed 150 percent of the severance payment cap (value of two years' remuneration including benefits).

## Corporate governance statement and corporate governance report<sup>15</sup>

The combined corporate governance statement of PVA TePla AG and the PVA TePla Group pursuant to sections 289f and 315d of the German Commercial Code (HGB) includes the declaration of conformity with the German Corporate Governance Code (GCGC) pursuant to section 161 of the German Stock Corporation Act (AktG), relevant disclosures on corporate governance practices, the description of the functioning and composition of the Management Board and Supervisory Board and of the functioning of the Supervisory Board committees, the targets set pursuant to sections 76 (4) and 111 (5) of the AktG and the disclosures on the achievement of the targets, including the description of the diversity concept.

### Declaration of conformity with the recommendations of the German Corporate Governance Code

The Management Board and Supervisory Board of PVA TePla AG, headquartered in Wettengel, Germany, hereby declare that PVA TePla AG has complied with the recommendations of the Government Commission on the German Corporate Governance Code in the version dated April 28, 2022, published in the official section of the Federal Gazette by the Federal Ministry of Justice and Consumer Protection on June 27, 2022 (GCGC), since the last declaration of conformity was issued, with the deviations described below, and will maintain its compliance in the future, with the deviations described below:

- Recommendation C.5 of the GCGC includes the proposal that the Chair of the Management Board of a listed company should not chair the Supervisory Board of a nongroup listed company.

This recommendation has not been complied with and will not be complied with in the future. Alexander von Witzleben, who is a member of the Management Board of a nongroup listed company, currently holds a total of three such Supervisory Board mandates in addition to his office as Chairman of the Supervisory Board of PVA TePla.

**Justification:** Alexander von Witzleben has declared to the company that he has sufficient time available to discharge his duties as Chairman of the Supervisory Board of PVA TePla and that he can discharge his duties with the necessary regularity and diligence. The Supervisory Board and Management Board of PVA TePla AG do not see any conflicts of interest or time conflicts arising from his other mandates. During his term of office, Alexander von Witzleben has provided critical and intensive support to and oversight of the management of PVA TePla on an ongoing basis.

- Recommendation C.7 of the GCGC includes the proposal that, with regard to their independence from the company and its Management Board, Supervisory Board members should not serve on the Supervisory Board for more than twelve years.

This recommendation has not been complied with and will not be complied with in the future. Alexander von Witzleben and Prof. Dr. Hebestreit have been members of the Supervisory Board for more than twelve years.

**Justification:** The Supervisory Board does not consider a general limit on the length of service of Supervisory Board members to be appropriate. Setting such a limit would be based on the assumption that a longer period of membership of the Supervisory Board alone would disqualify a Supervisory Board member from further membership or call into question the independence of the Supervisory Board member. There is no objective justification for such an assumption. Moreover, such a rigid limit does not take into account individual factors that favor a longer period of membership of individual Supervisory Board members.

<sup>8</sup> Unaudited component of the combined management report

- Recommendation D.4 of the GCGC proposes that the Supervisory Board should form a Nomination Committee composed exclusively of shareholder representatives, which nominates suitable candidates to the Supervisory Board for its proposals to the Annual General Meeting for the election of Supervisory Board members.

This recommendation has not been complied with and will not be complied with in the future. The Supervisory Board has decided against establishing a Nomination Committee.

**Justification:** In the opinion of the Supervisory Board, establishing such a Nomination Committee does not further increase the efficiency of the work of the Supervisory Board given the composition of the Supervisory Board and the voting processes within the Supervisory Board. The Supervisory Board therefore retains this function within the full Supervisory Board.

Section G of the GCGC contains recommendations on the remuneration of the Management Board. These are closely related to the amendments to the AktG in respect of Management Board remuneration resulting from the German Act Implementing the Second Shareholder Rights Directive. The Supervisory Board fundamentally revised the Management Board remuneration system in 2021, taking into account the new requirements for Management Board remuneration contained in the AktG, and submitted this new system to the company's Annual General Meeting in 2021 for approval. The Annual General Meeting approved this remuneration system. Since then, the new system has applied to all new or renewed Management Board service contracts. On the basis of this system, the recommendations on Management Board remuneration contained in Section G of the GCGC are complied with and will continue to be complied with in the future, with the following exceptions:

- Recommendation G.6 of the GCGC proposes that the share of variable remuneration achieved as a result of reaching long-term targets should exceed the share from short-term targets.

This recommendation may not be complied with in all cases in the future. The remuneration system defines the same percentage ranges for the share of short- and long-term variable remuneration in the total target remuneration which means that, depending on the specific definition within these ranges, the share of short-term variable remuneration may exceed the share of long-term variable remuneration. The Supervisory Board reserves the right to make appropriate changes.

**Justification:** The remuneration system is structured such that the long-term variable remuneration component accounts for a significant share of the target total remuneration in each case. In the opinion of the Supervisory Board, this provides sufficient long-term incentive and the long-term remuneration component makes a key contribution to aligning the Management Board remuneration system with the company's long-term and sustainable development. However, there may well be individual situations in which the Supervisory Board sees a particular need in the interests of the company to define a specific and significant incentive in respect of short-term targets as well and then to define the ratio of short-term to long-term variable remuneration accordingly within the ranges specified by the remuneration system. The Supervisory Board wishes to retain this flexibility.

- Recommendation G.7 of the GCGC includes the proposal that the Supervisory Board should establish the performance criteria for each Management Board member covering all variable remuneration components for the upcoming fiscal year.

This recommendation has not been complied with and will not be complied with in the future to the extent that the performance criteria for all variable remuneration components are not established annually but are defined for a longer period by the Management Board service agreement. In accordance with the remuneration system, this may relate to threshold values and percentages with regard to Group EBIT as a financial performance criterion for short-term variable remuneration and applies to the performance criterion for long-term variable remuneration.

**Justification:** In the opinion of the Supervisory Board, defining the performance criteria for all variable remuneration components for each upcoming fiscal year is not required and would involve unnecessary effort. For example, threshold values and percentages with regard to Group EBIT may also be suitable as performance criteria for short-term variable remuneration for a longer period. As the long-term variable remuneration has an assessment period of three to five years, the performance criterion for this – namely the increase in market capitalization – is also defined for three to five years in line with the assessment period and not for each upcoming fiscal year. This approach serves to ensure legal certainty and planning capability for the members of the Management Board. If the performance criteria for a medium-term period have already been defined conclusively, there is no longer any need to define them for each upcoming fiscal year. Confirmation resolutions would have no added value. Irrespective of this, the defined performance criteria are designed in each case to foster the company's strategic and sustainable development and increase its enterprise value.

- Recommendation G.10 of the GCGC proposes that the variable remuneration amounts granted should be invested predominantly in shares of the company or should be granted as share-based remuneration, taking the respective tax burden into consideration. Granted long-term variable remuneration components should be accessible to the Management Board member only after a period of four years.

This recommendation has not been complied with and will not be complied with in the future. The short-term variable remuneration amounts are not invested in shares of the company nor are they granted as share-based remuneration. However, the long-term variable remuneration is similar to share-based remuneration because the performance criterion is the development of the company's market capitalization. The assessment period is between three and five years which means that, in individual cases, a member of the Management Board may be able to access the long-term variable grant amounts after less than four years.

**Justification:** The Supervisory Board is of the opinion that the structure described above creates sufficient alignment between Management Board remuneration and shareholder interests. As the company's strategic and sustainable development has an impact on its market capitalization and thus on the long-term variable remuneration amount, the objective of share-based remuneration is also achieved by the long-term variable remuneration system applied by the company.

- Recommendation G.11 of the GCGC proposes that the Supervisory Board should have the possibility to account for extraordinary developments to an appropriate extent. It should be possible to retain or reclaim variable remuneration if justified.

This recommendation has not been complied with and will not be complied with in the future because the remuneration system does not provide for the retention or claw-back of variable remuneration components.

**Justification:** The Supervisory Board is of the opinion that, even without such provisions, the remuneration system provides sufficient incentives for the company's long-term and sustainable development, that statutory claims for damages are sufficient encouragement to the Management Board to discharge its duties diligently, and that such claims could be enforced with adequate certainty.

- Recommendation G.12 of the GCGC proposes that, if the contract of a Management Board member is terminated, the disbursement of any remaining variable remuneration components attributable to the period until contract termination should be based on the originally agreed targets and comparison parameters and on the due dates or holding periods stipulated in the contract.

This recommendation has not been complied with and will not be complied with in the future.

**Justification:** The company is convinced that, if the contract of a Management Board member is terminated, the option of making a lump-sum settlement for any remaining variable remuneration components at the time of contract termination of the Management Board member concerned may be advantageous and helpful for the company in reaching an amicable agreement with that Management Board member. In addition, this will rule out what the company considers to be an inappropriate impact on variable remuneration from future developments that are not attributable to the departing Management Board member.

Wettenberg, Germany, March 2024

For the Management Board



Jalin Ketter  
CEO

For the Supervisory Board



Alexander von Witzleben  
Vorsitzender des Aufsichtsrats



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## Disclosures on corporate governance practices

The PVA TePla Group is a listed, international corporate group headquartered in Wettengel, Germany, that applies a dual management system. For this reason, the German Stock Corporation Act (AktG), our Articles of Association, the rules of procedure for the Management Board and Supervisory Board, and the company-specific implementation of the requirements of the German Corporate Governance Code (GCGC) form the basis for the division of responsibilities between the Management Board and Supervisory Board as well as for the organization of the Group's management and supervisory structure. We base our business conduct on Group-wide standards that exceed the requirements of the law and the GCGC. Aspects of this also include trust, respect and integrity in the way we treat each other.

## Risk and opportunity management and ICS

The principles of responsible corporate governance include a continuous and forward-looking assessment of risks and opportunities aimed at achieving a balance between growth and profitability targets and the associated risks.

The aim of the internal control system (ICS) for the accounting process is to ensure the reliability of external reporting by preparing financial statements that comply with the applicable regulations. To monitor the effectiveness of the ICS, regular reviews of accounting-relevant processes are performed by way of internal controls. In addition, the Audit Committee of the Supervisory Board monitors the system's effectiveness.

Detailed information about the risk and opportunity management system as well as the ICS of the PVA TePla Group is presented in the combined Group management report.

## Compliance and Code of Conduct

PVA TePla considers responsible and lawful conduct to be indispensable to the sustained success of its business activities. This means that the primary objective of our compliance management system is to ensure the lawful conduct of the Group's companies, management bodies and employees in respect of statutory and internal company requirements and prohibitions as well as to prevent violations. The basis for compliance management is the Code of Conduct in its most recently published version. This describes the risks associated with business dealings and provides specific recommendations regarding conduct. The Code of Conduct is binding on all employees of the PVA TePla Group worldwide. Other important prerequisites for our business activities are the example set by managers, open and fair communication at and between all levels of the company and close cooperation with customers and suppliers in a spirit of partnership. At the same time, we expect our suppliers and business partners to share our attitude with regard to integrity and sustainability.

An electronic whistleblowing system provides a channel for reporting any suspected white-collar crime or violations of compliance regulations. The PVA TePla Group aims to avoid all bribery and corruption (including conflicts of interest, money laundering, etc.) in order to foster a compliant and ethical working environment in which risks can be identified and prevented before they arise.

## Sustainable corporate governance

The PVA TePla Group aims to operate sustainably and responsibly in all its areas of activity. This means respecting the law, conserving resources, fostering climate change mitigation and fulfilling our responsibility toward our employees and society. On the basis of our philosophy and the conviction that sustainable and responsible business practices increase the Group's ability to innovate and remain viable, we consider environmental, social and governance aspects in the Group's alignment and operational decisions as well as in its sustainability strategy.

Further information can be found in the "Sustainability" section of this report and the combined nonfinancial statement contained therein.

## Functioning of the Management Board and Supervisory Board as well as the composition and functioning of their committees

As a stock corporation domiciled in Germany, PVA TePla AG is managed in accordance with the management and supervisory structure stipulated by law. The Management Board is responsible for managing the company and determining its strategic direction. The Supervisory Board oversees and advises the Management Board and is directly involved in decisions of fundamental importance to the company. It appoints and dismisses the members of the Management Board, decides on the remuneration system for the members of the Management Board, which is submitted to the Annual General Meeting for approval in accordance with section 120a of the AktG, and sets their respective total remuneration. The Supervisory Board and Management Board work closely in a spirit of trust for the benefit of the company and to create sustainable value. Certain decisions require the approval of the Supervisory Board pursuant to the rules of procedure for the Management Board.

## Composition of the Management Board and allocation of responsibilities

The Management Board jointly manages the operating business. As of the reporting date, it consisted of two members: Jalin Ketter (CEO) and Oliver Höfer (COO). The former members of the Management Board, Manfred Bender and Dr. Andreas Mühe, left the company on June 30, 2023, as had been communicated previously.

The members of the Management Board are closely involved in the company's operating activities. In view of the small number of Management Board members, no Management Board committees have been established. Without prejudice to the overall responsibility of the Management Board, each member of the Management Board independently manages the operating segment assigned to them by the rules of procedure. A detailed presentation of responsibilities can be found in the schedule of responsibilities in the rules of procedure for the Management Board, which can be downloaded from the Investor Relations/Corporate Governance section of the company's website.

An age limit of 65 years has been defined for the Management Board members in the rules of procedure for the Supervisory Board. The remuneration of the Management Board members is discussed in the separate remuneration report, which can be downloaded from the Investor Relations/Corporate Governance section of our website.

## Functioning of the Management Board

The Management Board of PVA TePla AG defines the corporate objectives, strategic direction, corporate policy and Group organization. Its work notably includes managing the Group and its financial resources, coordinating and monitoring the operating segments, planning human resources as well as presenting the company to the capital market and the general public.

In accordance with the rules of procedure and schedule of responsibilities for the Management Board, the Chief Executive Officer is responsible in particular for managing and coordinating the Group Management Board. She represents the company and the Group vis-à-vis third parties and the workforce in overarching matters that do not just concern parts of the company or the Group. In addition, she has special responsibility for specific areas in accordance with the schedule of responsibilities as well as for the company's strategic development.

Resolutions of the Management Board are passed at its meetings. The meetings of the Management Board are chaired by the Chief Executive Officer. Each Management Board member may request that a meeting be convened, stating the matter for discussion by the meeting. The entire Management Board adopts resolutions by a simple majority of the participating members. In the event of a tied vote, the Chief Executive Officer has the casting vote. The aforementioned casting vote provision applies solely if the Management Board comprises more than two members. If the Management Board consists of only two members, the proposed resolution must be submitted to the Chairman of the Supervisory Board for mediation in the event of a tied vote.

The rules of procedure for the Management Board also include a catalog of measures that require discussion and resolution by the full Management Board. Moreover, there is a catalog of business transactions that require the approval of the Supervisory Board. In addition, regular Management Board meetings are held which are also attended by the managing directors of the subsidiaries.

The Management Board reports to the Supervisory Board regularly, promptly and comprehensively on all significant issues relating to business development, corporate strategy and potential risks.

## Diversity concept for the Management Board and succession planning

When considering which individual personalities would be the best fit for the Management Board, the Supervisory Board also considers diversity in the context of long-term succession planning. The Supervisory Board understands diversity in this context to mean, in particular, different but mutually complementary professional profiles; professional, educational and life experience, including international experience; age; and appropriate gender representation.

Irrespective of individual criteria, the Supervisory Board is convinced that ultimately it is solely the overall assessment of the individual personality that is decisive in making an appointment to the PVA TePla AG Management Board. The Supervisory Board considers the following criteria to be essential for the Management Board as a whole:

- Many years of management experience in scientific, technical and commercial fields
- International experience due to origin and/or professional activity
- A balanced age structure to ensure continuity in the work of the Management Board and facilitate smooth succession planning

The Supervisory Board works with the Management Board to identify potential succession issues and decide a plan of action for each individual case. In this, the Supervisory Board considers the following aspects in particular:

- Early identification of suitable candidates from different disciplines and of different genders
- Systematic development of managers by way of the successful assumption of roles with increasing responsibility, preferably in different businesses, regions and functions
- Proven strategic and operational drive and leadership, especially in challenging business conditions

### Composition of the Supervisory Board

Pursuant to the resolution of the Annual General Meeting on June 28, 2023, the Supervisory Board of PVA TePla AG was expanded to four members. Compared with a year earlier, the Supervisory Board comprises the following persons:

- Alexander von Witzleben, Chairman of the Supervisory Board, German nationality, \* 1963
- Prof. Dr. Gernot Hebestreit, Deputy Chairman of the Supervisory Board, German nationality, \* 1963
- Prof. Dr. Markus H. Thoma, member of the Supervisory Board, German nationality, \* 1958
- Dr. Myriam Jahn, member of the Supervisory Board, German nationality, \* 1968

Alexander von Witzleben has been a member of the Supervisory Board of PVA TePla AG since 2004, Prof. Dr. Gernot Hebestreit since 2008 and Prof. Dr. Markus H. Thoma since 2014. Dr. Myriam Jahn was elected as a member of the Supervisory Board of PVA TePla AG by resolution of the Annual General Meeting on June 28, 2023. Her appointment took account of the targets set by the Supervisory Board for its composition as well as of the diversity concept. Dr. Jahn is a semiconductor equipment and mechanical engineering expert, with additional expertise in the areas of digitalization, ESG, sales and human resources management. She thus contributes to fulfilling the competence profile defined for itself by the Supervisory Board. Moreover, her election means that the target for the proportion of women on the Supervisory Board was achieved.

The resumés of the Supervisory Board members and details of the other mandates they hold can be found at: <https://www.pvatepla.com/management/>. The remuneration of the Supervisory Board members is reported in the separate remuneration report, which can be downloaded from the Investor Relations/Corporate Governance section of our website.

### Functioning of the Supervisory Board

The Supervisory Board is responsible for advising and overseeing the Management Board in its management of PVA TePla AG. It has defined rules of procedure for itself. The rules of procedure for the Supervisory Board can be downloaded from the Investor Relations/Corporate Governance section of the company's website.

The Chair of the Supervisory Board is elected by its members. The Supervisory Board meets regularly. It performs its activities in accordance with statutory provisions, the company's Articles of Association as well as its own rules of procedure and resolutions. In accordance with statutory provisions, the Supervisory Board oversees the Management Board in the performance of its duties and managing the company. It lends particular support to the Management Board in the critical discussion of fundamental issues relating to the direction of the company. These issues notably include the annual corporate planning and the preparation of the financial statements, as well as fundamental issues relating to the company's strategic direction and forward development. Additionally, the Supervisory Board discusses the scope of its work in its report to the Annual General Meeting.

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At four ordinary meetings each year, the Supervisory Board is informed in detail about the economic situation and the company's business performance. In the event of special external or internal occurrences, the Supervisory Board also convenes extraordinary meetings. Supervisory Board meetings are convened by the Chair or, if he is indisposed, by a deputy, giving notice of at least seven days except in urgent cases where the notice period may be shortened. As a rule, the Management Board attends Supervisory Board meetings, provides both written and oral reports in respect of the individual agenda items and draft resolutions as well as answering questions from the Supervisory Board members. Management Board reports explaining key corporate financial and nonfinancial indicators provide the Supervisory Board with insights into the development of the company's business performance. In addition to the meetings and reports, Supervisory Board members hold regular discussions with the Management Board.

At regular intervals, the Supervisory Board reviews the efficiency of its work using a structured questionnaire to interview the members of the Supervisory Board and Management Board.

### **Committees of the Supervisory Board**

The Supervisory Board has established an Audit Committee comprising three members. This deals in particular with the audit of the accounts, the monitoring of the accounting process, the effectiveness of the internal control system, the risk management system and the internal audit system as well as the audit of the annual financial statements and compliance. The accounting process notably includes the consolidated financial statements and the combined Group management report (including nonfinancial reporting), financial communications during the year and the single-entity financial statements prepared in accordance with the German Commercial Code (HGB). The Chairman of the Audit Committee is Prof. Dr. Gernot Hebestreit. He fulfills the statutory requirements for independence and expertise in the fields of accounting and auditing. Alexander von Witzleben also fulfills the statutory requirements in the field of accounting. Until October 26, 2023, Prof. Dr. Markus H. Thoma was the other member of the Audit Committee. He was succeeded in this role by Dr. Myriam Jahn as of October 27, 2023.

### **Diversity concept for the Supervisory Board**

The Supervisory Board of PVA TePla AG, which currently comprises four persons, aims to achieve a composition of the Supervisory Board that, in light of the company's specific situation, object and size, takes account of the following elements:

On the shareholder side, all persons with no potential conflicts of interest should be represented on the Supervisory Board, in particular with no conflicts of interest that may arise as a result of a consulting or board function with customers, suppliers, lenders or other third parties.

The Supervisory Board has adopted a detailed competence profile for its composition. This is described in the Investor Relations/Corporate Governance section of our website ([www.pvatepla.com](http://www.pvatepla.com)).

When proposing candidates for election by the Annual General Meeting, the Supervisory Board will continue to focus on diversity in terms of age, educational and professional background, internationality and the proportion of women.

## Supervisory Board competence profile

The Supervisory Board has adopted a detailed competence profile for its composition, which incorporates both the skills and expertise required by the German Corporate Governance Code (GCGC) and the diversity concept stipulated by section 289f of the German Commercial Code (HGB). The competence profile can be downloaded from the Investor Relations/ Corporate Governance section of our website.

Based on the targets for its composition, the Supervisory Board has prepared the following overview of the current status of implementation in the form of a qualification matrix:

Competence requirements	Alexander von Witzleben	Prof. Dr. Gernot Hebestreit	Prof Dr. Markus H. Thoma	Dr. Myriam Jahn
Length of service				
Member since	June 2004	June 2008	June 2014	June 2023
Personal suitability				
Independence	Fulfilled	Fulfilled	Fulfilled	Fulfilled
No overboarding	No overboarding in principle but deviation from declaration of conformity	Fulfilled	Fulfilled	Fulfilled
Diversity				
Gender	Male	Male	Male	Female
Year of birth (age)	1963 (60 years)	1963 (60 year)	1958 (65 year)	1968 (55 year)
Nationality	German	German	German	German
International experience	Fulfilled	Fulfilled	Fulfilled	Fulfilled
Education and training	University studies	University studies	University studies	University studies
Professional suitability				
High-tech mechanical engineering	Fulfilled	Fulfilled	Fulfilled	Fulfilled
Risk management/compliance		Fulfilled		
Corporate governance and control	Fulfilled	Fulfilled		Fulfilled
Financial expert for accounting (section 100 (5) of the AktG)	Fulfilled	Fulfilled		
Financial expert for auditing (section 100 (5) of the AktG)		Fulfilled		
Digitalization				Fulfilled
Corporate social responsibility/ESG		Fulfilled		Fulfilled
Personnel management/human resources				Fulfilled
Natural sciences			Erfüllt	
Engineering			Fulfilled	Fulfilled

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## Diversity

The Management Board and Supervisory Board of PVA TePla AG rely on the multifaceted nature and diversity of the company's employees. For the PVA TePla Group, they are the cornerstone of an efficient and successful company. Diversity activities aim to bring together the right people to deal with the challenges we face and create a working culture that fosters the performance, motivation and satisfaction of our employees and our managers.

### Management level below the Management Board

In the reporting year, PVA TePla AG introduced a new management level directly below the Management Board by appointing authorized signatories. Prior to this, there was only one management level below the Management Board. In May 2023, a target of 30 percent was defined for the proportion of women at this management level. The company aims to at least maintain this proportion until December 31, 2026.<sup>16</sup>

### Management Board

The Supervisory Board fills Management Board positions notably based on candidates' professional and personal aptitude. In the case of equal aptitude, the Supervisory Board will give consideration to diversity and the proportion of women. This means that, when appointing Management Board members, the Supervisory Board will not only ensure that the persons appointed have the personal and professional qualifications and experience required to discharge their duties. It will also seek to secure diversity of opinion and experience among Management Board members.

At the present time, the Management Board has two members, one female and one male. Women therefore make up 50 percent of the Management Board. The current target for the proportion of women on the Management Board is 30 percent by December 31, 2026.

### Supervisory Board

The Supervisory Board currently comprises three male members and one female member. The target for the proportion of women on the Supervisory Board is 25 percent by December 31, 2026. Women currently make up 25 percent of the Supervisory Board. Regarding gender equality, the Supervisory Board is guided in particular by the professional and personal aptitude of the candidates whom it proposes to the Annual General Meeting for election as new Supervisory Board members. In the case of equal suitability, the Supervisory Board will give consideration to diversity.

<sup>16</sup> In our sustainability reporting, we present the proportion of women at the first and second management levels Group-wide – in other words, including all Group companies.

## Other corporate governance disclosures

### Transparent corporate communications

Open and transparent corporate communications are an essential component of good corporate governance. Alongside clarity and comprehensibility of content, this aspect calls for equal access to the company's information for all target groups. In the year under review, PVA TePla AG took an equitable approach to providing shareholders, financial analysts, the media and interested members of the public with up-to-date information on the company's development and significant events.

All mandatory publications and additional supplementary information were made available on the company's website in a timely manner. The company's publications – such as ad-hoc releases, press releases, interim reports, the Annual Report and directors' dealings – were and are published simultaneously in German and English.

A financial calendar is compiled showing the dates of major recurring events, including the publication dates of the Annual Report and interim reports as well as the date of the Annual General Meeting. Updated on an ongoing basis, this can be found in the Investor Relations section of the company's website. The publication dates are based on the provisions of the Exchange Rules of the Frankfurt Stock Exchange for securities in the Prime Standard segment.

### Shareholders and Annual General Meeting

The shareholders of PVA TePla AG exercise their rights at the Annual General Meeting. The Annual General Meeting adopts resolutions, for example, on the appropriation of profit, the ratification of the actions of the members of the Management Board and Supervisory Board as well as the election of the independent auditor.

Shareholders may exercise their voting rights at the physical Annual General Meeting either in person, through a proxy of their choice or a company proxy acting on their instructions, or by postal vote. Last year's Annual General Meeting was held as a physical event. The Chairman of the Supervisory Board chairs the Annual General Meeting and reports on the work of the Supervisory Board and its committees in the past fiscal year. The Management Board explains the annual financial statements, the consolidated financial statements, the combined management report and the proposal for the appropriation of profit agreed with the Supervisory Board, as well as other motions for resolution that are to be voted on.

The reports, documents and information stipulated by law for the Annual General Meeting, including the Annual Report, can be downloaded from the Investor Relations/Annual General Meeting section of our website. The agenda for the Annual General Meeting and any countermotions or proposals for election from shareholders that must be made accessible are likewise published there.







# **Consolidated Financial Statements**

**for Fiscal Year 2023**



# Consolidated Financial Statements

## Consolidated Balance Sheet of the PVA TePla Group

### Assets

in EUR '000	Notes	Dec. 31, 2023	Dec. 31, 2022
<b>Non-current assets</b>			
Intangible assets	8	18,597	20,497
Right-of-use assets	20	2,924	2,650
Property, plant and equipment	9	41,646	33,997
Non-current investments	10	9,011	9,019
Deferred tax assets	13	9,997	6,581
<b>Total non-current assets</b>		<b>82,175</b>	<b>72,742</b>
<b>Current assets</b>			
Inventories	11	94,601	74,996
Receivables and other financial assets	12	57,016	73,569
Contract assets	12	50,613	40,466
Income tax assets		823	1,332
Cash, cash equivalents, and term deposits	G	20,132	27,227
<b>Total current assets</b>		<b>223,185</b>	<b>217,589</b>
<b>Total assets</b>		<b>305,360</b>	<b>290,331</b>

## Consolidated Balance Sheet of the PVA TePla Group

### Liabilities and Shareholders Equity

in EUR '000	Notes	Dec. 31, 2023	Dec. 31, 2022
<b>Shareholders' equity</b>			
Share capital	H	21,750	21,750
Reserves	H	105,667	82,346
<b>Total shareholders' Equity</b>		<b>127,417</b>	<b>104,096</b>
<b>Non-current liabilities</b>			
Retirement pension provisions	15	11,770	11,453
Other provisions	16	853	906
Financial liabilities	14	14,458	5,073
Deferred tax liabilities	13	12,808	8,127
<b>Total non-current liabilities</b>		<b>39,889</b>	<b>25,558</b>
<b>Current liabilities</b>			
Other provisions	16	7,300	4,411
Financial liabilities	14	5,291	5,801
Liabilities to employees		7,699	7,273
Trade payables		18,825	18,295
Contract liabilities	17	95,268	113,510
Provisions for taxes		529	8,681
Other liabilities		3,142	2,707
<b>Total current liabilities</b>		<b>138,054</b>	<b>160,677</b>
<b>Total liabilities</b>		<b>305,360</b>	<b>290,331</b>

## Consolidated Income Statement of the PVA TePla Group

in EUR '000	Notes	Jan 1 – Dec 31, 2023	Jan 1 – Dec 31, 2022
Sales revenues	1	263,446	205,225
Cost of sales		- 185,939	- 146,167
<b>Gross profit</b>		<b>77,507</b>	<b>59,058</b>
Selling and distributing expenses		- 19,147	- 16,140
General administrative expenses		- 15,451	- 11,463
Research and development expenses	2	- 9,513	- 6,522
Other operating income	3	5,795	5,404
Other operating expenses	3	- 4,811	- 5,249
<b>Operating result (EBIT)</b>		<b>34,379</b>	<b>25,088</b>
<b>Financial result</b>	4	<b>- 274</b>	<b>- 1,300</b>
Financial income	4	714	418
Finance costs	4	- 988	- 1,718
<b>Net result before tax</b>		<b>34,105</b>	<b>23,788</b>
Income taxes	5	- 9,684	- 6,130
<b>Consolidated net result for the period</b>		<b>24,421</b>	<b>17,658</b>
<b>Earnings per share (basic/diluted)</b>			
Earnings per share (basic) in EUR		1.12	0.81
Earnings per share (diluted) in EUR		1.12	0.81

## Consolidated Statement of Comprehensive Income of the PVA TePla Group

in EUR '000	Jan 1 – Dec 31, 2023	Jan 1 – Dec 31, 2022
Consolidated net result for the period	24,421	17,658
<b>Other comprehensive income</b>		
Items that may be reclassified to profit or loss:		
– Currency changes	– 406	443
– Income taxes	0	0
Changes in the amount recognised in equity (currency differences)	– 406	443
<b>Total of items that may be reclassified to profit or loss</b>	– 406	443
Items that will never be reclassified to profit or loss:		
– Change in pension provision	– 977	4,303
– Income taxes	283	– 1,097
Changes recognized outside profit or loss	– 694	3,206
<b>Total of items that will never be reclassified to profit or loss</b>	– 694	3,206
<b>Total comprehensive income</b>	<b>23,321</b>	<b>21,307</b>

## Consolidated Cash Flow Statement of the PVA TePla Group

in EUR '000	Jan 1 – Dec 31, 2023	Jan 1 – Dec 31, 2022
Consolidated net result for the year	24,421	17,658
Adjustments to the consolidated net result for the year reconciliation to the cash flow operating activities		
+ Income taxes	9,684	6,130
– Financial income	– 714	– 418
+ Financial expenses	988	1,718
<b>= Operating result (EBIT)</b>	<b>34,379</b>	<b>25,088</b>
+/- Income tax payments	– 15,807	– 2,920
+ Amortization and depreciation	7,149	4,940
–/+ Gains/losses on disposal of non-current assets	24	35
+/- Other non-cash expenses/income	– 293	804
–/+ Increase/decrease in inventories, trade receivables and other assets	– 8,620	– 55,624
+/- Increase/decrease in provisions	2,068	– 1,439
+/- Increase/decrease in trade payables and other liabilities	– 16,902	15,044
<b>Cash flow from operating activities</b>	<b>1,998</b>	<b>– 14,073</b>
+ Receipts from associated entities	0	319
– Cash flow from obtaining control of subsidiaries or other business less acquired cash	– 300	– 6,149
+ Receipts from intangible assets and property, plant and equipment	44	165
– Payment of intangible assets and property, plant and equipment	– 11,266	– 6,689
+ Receipts from financial assets	8	– 19
– Cash out from investments in financial assets	0	– 9,000
+ Interest receipts	673	92
<b>Cash flow from investing activities</b>	<b>– 10,841</b>	<b>– 21,281</b>
+ Proceeds from (financial) loans raised	13,352	0
– Repayment of (financial) loans	– 144	0
– Payments for the repayment of leasing liabilities	– 1,293	– 1,103
– Payments from redemption of financial liabilities	– 4,386	– 3
– Payment of interest	– 226	– 199
<b>Cash flow from financing activities</b>	<b>7,303</b>	<b>– 1,305</b>
<b>= Net change in cash and cash equivalents</b>	<b>– 1,540</b>	<b>– 36,660</b>
+/- Effect of exchange rate fluctuations on cash	– 99	– 471
+ Cash and cash equivalents at the beginning of the period	15,602	52,734
<b>= Cash and cash equivalents at the end of the period</b>	<b>13,964</b>	<b>15,602</b>
<b>Cash, cash equivalents and term deposits</b>	<b>20,132</b>	<b>27,227</b>
– Term deposits	– 6,168	– 11,625
<b>= Cash and cash equivalents in cash flow statement</b>	<b>13,964</b>	<b>15,602</b>



## Consolidated Statement of Changes in Equity of the PVA TePla Group

in EUR '000	Shares issued Number	Share capital	Retained earnings	Other reserves		Total reserves	Total shareholders' interest
				Currency exchange	Pension provisions		
As at January 1, 2022	21.749.988	21.750	65.833	560	- 5.354	61.039	82.789
Net result			17.658			17.658	17.658
Other result				443	3.206	3.649	3.649
Total			17.658	443	3.206	21.307	21.307
As at December 31, 2022	21.749.988	21.750	83.491	1.003	- 2.148	82.346	104.096
As at January 1, 2023	21.749.988	21.750	83.491	1.003	- 2.148	82.346	104.096
Net result			24.421			24.421	24.421
Other result				- 406	- 694	- 1.100	- 1.100
Total			24.421	- 406	- 694	23.321	23.321
As at December 31, 2023	21.749.988	21.750	107.912	597	- 2.842	105.667	127.417

# Notes to the Consolidated Financial Statements 2023

## A. Basis of preparation

### Registered office and legal form of the company

PVA TePla AG, Wettenberg (hereinafter referred to as “PVA TePla AG”) is a stock corporation under German law. The company is registered in the commercial register at the Local Court in Giessen under the number HRB 6845 and has its registered office at Im Westpark 10 – 12 in 35435 Wettenberg, Germany. PVA TePla AG’s shares are listed in the Prime Standard segment of the Frankfurt Stock Exchange (ISIN: DE0007461006) and have been included in the SDAX index since September 20, 2021.

### Business activities and operating segments

PVA TePla AG and the subsidiaries it controls (hereinafter referred to as the “PVA TePla Group”) are leading providers of high-tech solutions in the fields of materials technology and metrology. With a broad portfolio of innovative products, processes and services, PVA TePla supports customers in overcoming demanding challenges in a wide variety of industries that are driven by the global megatrends of digitization, decarbonization and mobility. PVA TePla manages and maintains business relationships worldwide through its locations in Germany, France, Italy, USA, China, Taiwan, Korea and Singapore. Going forward, PVA TePla’s regional growth initiatives will focus in particular on Asia and the Americas.

The PVA TePla Group divides its business activities into the two operating segments of Semiconductor Systems and Industrial Systems. The Group is managed, coordinated and controlled on the basis of these two operating segments, which in this respect form the two operating segments for the purposes of segment reporting. The Semiconductor Systems operating segment comprises solutions as well as plant and equipment systems for the semiconductor industry, primarily crystal growing systems, metrology systems for quality control and plasma systems for removing surface contamination from wafers. The Industrial Systems operating segment comprises solutions as well as plant and equipment systems for the semiconductor industry for the production, refinement and inspection of innovative materials, for surface treatment, cleaning and inspection, and for monitoring production processes, which are specially configured to meet the requirements and needs of other industries, such as the medical, electrical and tool industries.

### Accounting standards and general basis of presentation

The consolidated financial statements of PVA TePla AG for the fiscal year ended December 31, 2023 were prepared in accordance with the International Financial Reporting Standards (IFRSs) developed by the International Accounting Standards Board (IASB), as adopted by the European Union (EU), in application of section 315e of the German Commercial Code (HGB). All International Financial Reporting Standards (IFRSs), International Accounting Standards (IASs) and interpretations of the IFRS Interpretations Committee (IFRS IC) that are required to be applied for fiscal year 2023 have been taken into account. Moreover, all statutory disclosure and explanation requirements of the German Commercial Code (HGB) in addition to those of the IASB were met.

PVA TePla AG’s fiscal year and that of its subsidiaries is the calendar year. PVA TePla AG’s fiscal year 2023 began on January 1, 2023 and ended on December 31, 2023. This means that the corresponding prior-year period (hereinafter also referred to as the “previous year”) covers the period from January 1, 2022 to December 31, 2022.

The consolidated financial statements were prepared on a going concern basis using the historical cost principle. This does not include derivative financial instruments, earn-out liabilities, non-current provisions for variable remuneration components and equity instruments held by the PVA TePla Group, which are measured at fair value.

The consolidated income statement is prepared using the cost of sales method. Where items in the consolidated balance sheet and/or the consolidated income statement or consolidated statement of comprehensive income have been combined to enhance the clarity of presentation or for reasons of materiality, these are disclosed separately in the notes to the consolidated financial statements. An explanation of the accounting policies applied in relation to individual items in the consolidated balance sheet and consolidated income statement or consolidated statement of comprehensive income is provided in the individual notes to the consolidated financial statements, together with the relevant specific notes disclosures in each case.

The consolidated balance sheet classifies assets and liabilities into current and non-current. Assets and liabilities are classified as current if they are due within one year or within a longer normal operating cycle. Deferred tax assets and liabilities are generally presented as non-current items in the consolidated balance sheet.

The reporting currency and the functional currency of PVA TePla Group's consolidated financial statements is the euro (EUR). All amounts are presented in thousands of euros (EUR thousand), unless otherwise stated. For technical reasons, the information presented in these financial statements may contain rounding differences of +/- one unit (EUR thousand, %, etc.).

The PVA TePla Group's consolidated financial statements for the fiscal year from January 1, 2023 to December 31, 2023 were approved by the Management Board of PVA TePla AG on March 8, 2024 and submitted to the Supervisory Board for approval.



## B. Changes in accounting policies

### Pronouncements applied for the first time in fiscal year 2023

The accounting policies applied in the PVA TePla Group's consolidated financial statements for fiscal year 2023 generally correspond to those of the previous year (fiscal year 2022). As a departure from this policy, the PVA TePla Group applied the following new or amended standards as adopted into EU law by the European Union for the first time in fiscal year 2023. The initial application of these pronouncements in fiscal year 2023 resulted in the changes for the PVA TePla Group explained below the table.

Standard	Title	Initial application by PVA TePla Group	Adopted by the EU	Effects on the PVA TePla Group
IFRS 17	Insurance contracts	January 1, 2023	November 19, 2021	no effects
Amendments to IFRS 17	Initial Application of IFRS 17 and IFRS 9 – Comparative Information	January 1, 2023	September 8, 2022	not relevant
Amendments to IAS 1 and IFRS Practice Statement 2	Disclosure of Accounting Policies	January 1, 2023	March 2, 2022	Effects are explained below the table
Amendments to IAS 8	Definition of Accounting Estimates	January 1, 2023	March 2, 2022	no material effects
Amendments to IAS 12	Deferred Tax related to Assets and Liabilities arising from a Single Transaction	January 1, 2023	August 11, 2022	no material effects
Amendments to IAS 12	International Tax Reform: Pillar 2 Model Rules	January 1, 2023	November 8, 2023	not relevant

On February 12, 2021, the IASB issued Amendments to IAS 1 (and IASB Practice Statement 2 Making Materiality Judgments) under the title "Disclosure of Accounting Policies". This states that, in the future, only "material" accounting policies need to be presented in the notes. The initial application of this amendment to the PVA TePla Group's IFRS consolidated financial statements led solely to a change in presentation, not to any change in recognition or measurement. Going forward, the PVA TePla Group will focus its presentation of accounting policies exclusively on accounting policies that are material for an understanding of the financial statements.

On May 23, 2023, the IASB published amendments to IAS 12 entitled "International Tax Reform: Pillar 2 Model Rules" on mandatory relief from accounting for deferred taxes arising from global minimum taxation (including required notes disclosures). As the consolidated revenue of the PVA TePla Group is below the threshold of EUR 750 million, the Group is affected neither by the global minimum taxation rules nor by the relevant disclosure requirements of this amendment.

## Pronouncements required to be applied in future periods

The IASB and IFRS IC issued the following pronouncements that were not yet required to be applied in fiscal year 2023. The PVA TePla Group does not intend to apply these new or amended standards before their effective date.

Standard	Title	Initial application by PVA TePla Group	Adopted by the EU	Effects on the PVA TePla Group
Amendments to IFRS 16	Lease liability in a sale and leaseback transaction	January 1, 2024	November 20, 2023	not relevant
Amendments to IAS 1	Classification of liabilities as current or non-current and non-current liabilities with covenants	January 1, 2024	December 19, 2023	Effects are currently being analyzed
Amendments to IAS 7 and IFRS 7	Supplier finance arrangements	expected January 1, 2024	no	not relevant
Amendments to IAS 21	The effects of changes in foreign exchange rates: lack of exchangeability	expected January 1, 2025	no	not relevant



## C. Basis of consolidation, consolidation methods and foreign currency translation

### Basis of consolidation

The accompanying consolidated financial statements include PVA TePla AG as well as its domestic and foreign subsidiaries over which it can exercise control ("PVA TePla Group"). There is a general presumption that holding a majority of (direct or indirect) voting rights leads to control. The financial statements of subsidiaries to be included in the consolidated financial statements are included in the consolidated financial statements from the date on which the parent obtains control until the date on which the parent loses control.

In addition to PVA TePla AG, eight domestic (previous year: eight) and ten foreign (previous year: ten) subsidiaries were consolidated in the PVA TePla Group's consolidated financial statements as of December 31, 2023:

Company	Corporate domicile	Equity Share (%)	
		Direct shareholding December 31, 2023	Indirect shareholding December 31, 2023
PVA Industrial Vacuum Systems GmbH	Wettenberg, Germany	100	
PVA Crystal Growing Systems GmbH	Wettenberg, Germany	100	
PVA Metrology & Plasma Solutions GmbH	Wettenberg, Germany	100	
PVA TePla Analytical Systems GmbH	Westhausen, Germany	100	
PVA Löt- und Werkstofftechnik GmbH	Jena, Germany	100	
PVA Control GmbH	Wettenberg, Germany	100	
PVA SPA Software Entwicklungs GmbH	Coburg, Germany	100	
PVA Vakuum Anlagenbau Jena GmbH	Jena, Germany	100	
PVA Holding, LLC	Wilmington DE, USA	100	
OKOS Solutions, LLC	Manassas VA, USA		100
PVA TePla America, LLC	Corona CA, USA		100
PVA Italy S.r.l.	San Vito di Leguzzano, Italy	100	
M.P.A. Industrie SAS	La Chapelle-d'Aurec, France	100	
PVA TePla Singapore Pte. Ltd.	Singapore	100	
PVA TePla (China) Ltd.	Beijing, PR China	100	
PVA Semiconductor Systems Xi'an Ltd.	Xi'an, PR China	100	
PVA Taiwan Ltd.	Hsinchu, Taiwan	100	
PVA TePla Korea LLC	Gyeonggi-do, Republic of Korea	100	

## Exemption under section 264(3) of the HGB

The following domestic subsidiaries of PVA TePla AG make use of the exemption under section 264(3) of the HGB and are exempt for fiscal year 2023 from their obligation to prepare and publish German GAAP annual financial statements and a management report in accordance with the provisions applicable to corporations:

- PVA Industrial Vacuum Systems GmbH, Wettenberg
- PVA Crystal Growing Systems GmbH, Wettenberg
- PVA Metrology & Plasma Solutions GmbH, Wettenberg
- PVA TePla Analytical Systems GmbH, Westhausen
- PVA Löt- und Werkstofftechnik GmbH, Jena
- PVA Control GmbH, Wettenberg
- PVA SPA Software Entwicklungs GmbH, Coburg
- PVA Vakuum Anlagenbau Jena GmbH, Jena

## Changes in the basis of consolidation in fiscal year 2023

There were no changes in the basis of consolidation in fiscal year 2023.

## Changes in the basis of consolidation in fiscal year 2022

In January 2022, PVA TePla Korea LLC, Gyeonggi-do, Republic of Korea, was formed, in which PVA TePla AG directly holds 100 percent of the shares. This formation enabled the PVA TePla Group to expand its presence on the Asian markets. The company is responsible for sales activities in the Korean and other Asian markets.

In November 2022, PVA TePla AG acquired the remaining approximately 90 percent of the shares of M.P.A. Industrie SAS, La Chapelle-d'Aurec, France (hereinafter "M.P.A. Industrie SAS"), as a result of which PVA TePla AG gained control over M.P.A. Industrie SAS and now holds 100 percent of the shares. The purpose of the acquired company includes the construction of systems for coating surfaces.

There were no other changes in the basis of consolidation of the PVA TePla Group in the previous year.

## Consolidation methods

The financial statements of PVA TePla AG and its subsidiaries included in the consolidated financial statements are prepared in accordance with uniform measurement policies as of the reporting date of the consolidated financial statements (December 31, 2023). Recognition, measurement and classification principles as well as consolidation methods were applied consistently by all companies included in the consolidated financial statements. All intragroup assets and liabilities, income and expenses as well as cash flows from transactions between the companies included in the consolidated financial statements are fully eliminated in the process of consolidation. Income tax effects were taken into account and deferred taxes were recognized for consolidation adjustments recognized in profit or loss.

Accounting for subsidiaries in the consolidated financial statements uses the acquisition method. Under this method, the cost of the investment (consideration transferred) is allocated to the identifiable assets acquired and the identifiable liabilities and contingent liabilities assumed in accordance with their fair values at the acquisition date. Costs incurred as part of an acquisition are recognized as an expense. Deferred taxes are recognized on hidden reserves and liabilities realized in the course of initial consolidation, unless this realization is also recognized for tax purposes. In subsequent periods, the realized hidden reserves and liabilities are carried forward to reflect the accounting for the corresponding assets and liabilities. Any excess of the cost of the investment over the net fair value of the identifiable assets, liabilities and contingent liabilities is recognized as goodwill.

## Foreign currency translation

The items recognized in the financial statements of the individual subsidiaries of PVA TePla AG are measured on the basis of the applicable functional currency. The reporting currency of the PVA TePla Group's consolidated financial statements is the euro (EUR).

Foreign currency transactions are translated into the applicable functional currency at the current exchange rate on the transaction date. Monetary assets and liabilities denominated in foreign currencies are translated at the closing rate. Exchange differences are recognized in profit or loss and reported in the consolidated income statement under other operating expenses or other operating income. Nonmonetary assets and liabilities that are measured at historical cost in a foreign currency are translated using the exchange rate at the transaction date.

The financial statements of consolidated subsidiaries whose functional currency differs from the Group's reporting currency (EUR) are translated as follows: Assets and liabilities are translated at the closing rate (middle rate), equity is translated at historical rates and expenses and income are translated at the average rate for the year. Exchange differences arising from changes in exchange rates between individual fiscal years are generally accumulated in equity outside profit or loss under "Other reserves".

### Changes in the most important exchange rates versus the euro

EUR = 1	Average exchange rate		Closing rate	
	2023	2022	Dec. 31, 2023	Dec. 31, 2022
USA (USD)	1.08158	1.05388	1.10500	1.06660
China (CNY)	7.65907	7.08010	7.85090	7.35820
Singapore (SGD)	1.45234	1.45197	1.45910	1.43000
Korea (KRW)	1,413.26445	1,358.07118	1,433.6600	1,344.09000
Taiwan (TWD)	33.68100	31.31900	33.96200	32.72300



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## D. Management judgments and estimation uncertainties

In the consolidated financial statements of the PVA TePla Group, estimates and assumptions must be made to a limited extent that affect the recognition, amount and disclosure of assets and liabilities, income and expenses and contingent liabilities. Given the continued existence of political risks, these management judgments and estimates are subject to increased uncertainty.

Material management judgments and estimation uncertainties applying to recognition and measurement relate in particular to the determination of the difference between fair values and carrying amounts in the course of initial consolidation at the acquisition date and the measurement of variable purchase price components (earn-out clauses) when new companies are acquired (see note C), the measurement of goodwill (see note 8.), the measurement of inventories (see note 11.), impairment losses on receivables and contract assets (see note 12. and note 19.), the recognition and measurement of deferred tax assets in respect of loss carryforwards (see note 13.) as well as the amount and probability of settlement of pension provisions (see note 15.) and of other provisions (see note 16.), including the measurement of long-term remuneration components (see note 22.). Management judgments with regard to presentation primarily relate to the assessment of whether the requirements for offsetting deferred tax assets and deferred tax liabilities are met in individual cases. When assessing these judgments and estimation uncertainties, management is guided by past experience, assessments by experts (lawyers, rating agencies, associations, etc.) and the outcome of carefully considering various scenarios. Actual results and developments beyond the scope of management's control may differ significantly from the forecast developments and assumptions. This means that the management of the PVA TePla Group continuously reviews the estimates and assumptions made. Changes in estimates are recognized in profit or loss when better information becomes available.

Material management judgments and estimation uncertainties relating to revenue recognition are made when determining separate performance obligations, when determining the settlement date of performance obligations, when determining the method for ascertaining the progress of projects to be realized over time, when assessing significant financing components and when allocating the transaction price to the separate performance obligations:

- Determining whether a value proposition is to be considered a separate performance obligation (e. g., in the case of installation, training, maintenance, service and warranty obligations) may involve the exercise of considerable judgment in individual cases.
- The performance obligations resulting from contracts with customers of the PVA TePla Group in connection with system production and with services are either recognized over time over the performance period in accordance with the stage of completion (POC method) or recognized at a point in time as soon as the deliveries or services are rendered, depending on the specific facts and circumstances of the individual case. In the case of customer-specific system production, a judgment must be made as to whether an asset without an alternative use is created in the specific individual case, and whether there is also an enforceable legal claim to payment for the services already rendered, including an appropriate profit mark-up (in the event of an assumed termination of contract by the customer).

- In the case of projects to be realized over time, the method that most reliably measures the services rendered must be identified to measure progress. The PVA TePla Group mainly uses input methods to determine revenue from customer-specific system production, above all the cost-to-cost method. The stage of completion is measured as the proportion that costs incurred to date bear to the estimated total costs. The PVA TePla Group management holds the view that the cost-to-cost method is generally most suited to determine the progress of system production to be realized over time, as there is a more direct link between the pattern of the PVA TePla Group's costs and the transfer of control to the customer. The estimate of performance progress is based on experience and is monitored and adjusted on an ongoing basis.
- When determining the transaction price, significant financing components must always be taken into account if the performance and payment dates differ. Determining whether any significant financing component exists (at all) in individual cases calls for a judgment-based assessment of all relevant facts and circumstances in each specific case.
- If there are several performance obligations, the estimated contract consideration must be allocated to the identified performance obligations on the basis of the applicable relative standalone selling prices. The PVA TePla Group estimates standalone selling prices using other adequate methods solely in cases where the prices of individual goods and services cannot be observed directly on the market. Depending on the specific facts and circumstances in individual cases, the following methods are used: adjusted market assessment approach, expected cost plus a margin approach or – if certain restrictive conditions are met – the residual method.

The PVA TePla Group is not directly impacted by the consequences of the ongoing Russia-Ukraine war, as there are no material business relationships with suppliers and customers from these two countries. Nevertheless, the PVA TePla Group may be indirectly impacted, as the political and macroeconomic consequences of the Russia-Ukraine war are still impossible to predict. In light of this, the judgments and estimates made by the PVA TePla Group management are subject to increased uncertainty, particularly when determining the impairment of trade receivables using the expected credit loss model and when testing goodwill for impairment. Reflecting the underlying assumptions, the Russia-Ukraine war currently does not have a material impact on the net assets, financial position or results of operations of the PVA TePla Group.

## E. Consolidated income statement disclosures

### 1. Sales revenues

The PVA TePla Group generates its revenues primarily from the sale of systems. Additional revenues is generated from services and the supply of spare parts (collectively “after-sales service/IP”) and services for customers on their own systems (“contract processing”). The standard contract periods and payment terms for customer contracts in these operating areas of the PVA TePla Group are listed in the following, although individual contracts may differ from these contractual terms.

Operating areas	Contract durations	Payment conditions
Systems	3 – 18 months	30 – 40 % when order is received; 50 – 65 % on delivery; 5 – 10 % on acceptance
After-sales service/IP	1 – 6 weeks	100 % upon delivery (e. g., spare parts) or 100 % when service is provided
Contract processing	1 – 4 weeks	(e. g., contract processing; repairs)

### Breakdown of revenue by operating area

EUR '000	2023	%	2022	%
Systems	225,406	85	167,099	81
After-sales service/IP	29,935	11	30,688	15
Contract processing	6,781	3	6,388	3
Others	1,324	1	1,050	1
<b>Total</b>	<b>263,446</b>	<b>100</b>	<b>205,225</b>	<b>100</b>

### Breakdown of revenue by timing of performance

EUR '000	2023	%	2022	%
Sales revenues recognized at a point in time	163,514	62	138,290	67
Sales revenues recognized over time	99,932	38	66,935	33
<b>Total</b>	<b>263,446</b>	<b>100</b>	<b>205,225</b>	<b>100</b>

Please refer to the segment reporting in note 18 for additional revenue breakdowns.

### Customer-specific system production (POC method)

EUR '000	Dec. 31, 2023	Dec. 31, 2022
Revenue from customer-specific system production	87,633	60,055
Contract costs	- 64,048	- 47,019
Gains on customer-specific system production (POC method)	23,585	13,036

No significant financing components were agreed in contracts with customers in either fiscal year 2023 or the previous year.

### Performance obligations not yet fulfilled as of the end of the reporting period

EUR '000	expected to be fulfilled in ≤ 12 months	expected to be fulfilled in > 12 months
Overall scope of contractual obligations contracted at December 31, 2022 but not yet (fully) fulfilled	228,583	49,672
Overall scope of contractual obligations contracted at December 31, 2021 but not yet (fully) fulfilled	154,575	169,741



## Presentation of material accounting policies

Revenue is measured on the basis of the consideration specified in a contract with a customer that the PVA TePla Group expects to receive and realize when the customer obtains control of the agreed goods and services. Control can be transferred at a point in time or over time. Revenue is recognized net of value added tax and any sales deductions (e.g., credit notes and trade discounts). When determining the transaction price, significant financing components must be taken into account if the performance and payment dates differ.

Contracts with customers regularly contain various value proposition (products and services) that may be classified as separate performance obligations and to which a portion of the contract price must subsequently be allocated. Determining whether a product or service is to be classified as a separate performance obligation can involve considerable judgment. If several deliveries or services are provided to a customer, these are either contractually specified in separate individual contracts or combined in a single contract comprising several performance obligations. If deliveries or services contracted in separate individual contracts with a customer are closely related in time, these are combined into a multiple-element arrangement in the event of economic interdependencies.

Performance obligations resulting from contracts with PVA TePla Group customers in connection with the production of systems are only recognized over time over the production period in accordance with the stage of completion (POC method) if an asset is created without an alternative use and, additionally (in the event of an assumed termination of contract by the customer), there is also an enforceable legal claim to payment for the services already rendered (including an appropriate profit mark-up). In other cases, revenue is recognized at a point in time as soon as the deliveries or services have been provided, the risk has been transferred and there are no technical risks or special contractual provisions that contradict this. Revenue from services is recognized at a point in time or over time, depending on the specific facts and circumstances of the individual case.

When applying the POC method, revenue is recognized over time in accordance with the stage of completion. The service rendered (including the share of profit or loss) is recognized in the income statement over time within the "Revenue" item. The PVA TePla Group mainly uses input methods to determine the stage of completion of longer-term customer-specific system production contracts, above all the cost-to-cost method. The stage of completion is measured as the proportion that costs incurred to date bear to the estimated total costs. The ratio of these two figures produces the proportion of project revenue to be recognized as of the reporting date (cumulative performance). Revenue to be recognized using the POC method is reported either in the balance sheet item "Contract assets" or in the balance sheet item "Contract liabilities". If the cumulative performance (contract costs including profit shares) exceeds the prepayments received, the construction contracts are recognized as contract assets. However, any negative balance remaining after deducting prepayments is recognized as a liability in the balance sheet item "Contract liabilities". Prepayments that have already been invoiced and are due (but not yet paid) are recognized under "Contract assets" and "Contract liabilities". Anticipated losses on contracts are accounted for on the basis of identifiable risks and immediately included in full in contract profit or loss. Contractual revenue and contract modifications (e.g. contract modifications and supplementary agreements) are recognized as contract revenue. Contract assets and contract liabilities are reported as separate balance sheet items within current assets and current liabilities, as these are generally realized within one year in the PVA TePla Group.

## 2. Research and development expenses

The PVA TePla Group is engaged in high-tech mechanical engineering in single unit and small series production. Research into new methods and processes and the development of new product features are closely integrated in the continued development of products. The activities of both areas are tightly interconnected in an iterative manner, meaning that research and development activities and hence research and development costs cannot generally be reliably distinguished from one another. Moreover, the assessment of expected benefits is too uncertain in light of unknown market developments going forward. This means that the PVA TePla Group does not capitalize any development costs, with the result that research and development expenditures are recognized as expenses in the period in which they are incurred.

The PVA TePla Group obtains a small amount of input from prominent research and development institutions as part of cooperation agreements (service contracts). The development expenses incurred are capitalized as intangible assets if there is sufficient experience from this collaboration regarding the usability of the development results and the other recognition criteria under IAS 38 are met.

In fiscal year 2023, research and development expenses of EUR 9,513 thousand (previous year: EUR 6,522 thousand) were recognized in the consolidated income statement. Related income from research and development project grants was recognized in other operating income in the amount of EUR 783 thousand (previous year: EUR 993 thousand).

## 3. Other operating income/Other operating expenses

EUR '000	2023	2022
Foreign exchange gains	3,850	2,784
Grants for research and development projects	783	993
Remuneration in kind (e. g. company car)	395	383
Income from reversal of provisions	122	62
Insurance compensation	89	99
Income from the reversal of specific bad debt allowances on receivables	76	8
Income from the disposal of fixed assets	–	12
Miscellaneous operating income	479	1,063
<b>Other operating income</b>	<b>5,794</b>	<b>5,404</b>

EUR '000	2023	2022
Foreign exchange losses	– 3,863	– 3,883
Expenses for the recognition of specific bad debt allowances on receivables	– 185	– 139
Expenses from the disposal of fixed assets	– 20	– 29
Miscellaneous other operating expenses	– 743	– 1,198
<b>Other operating expenses</b>	<b>– 4,811</b>	<b>– 5,249</b>

## 4. Financial result

EUR '000	2023	2022
Investment income of M.P.A. Industrie SAS	–	318
Other interest and income	714	100
<b>Financial income</b>	<b>714</b>	<b>418</b>

Of the other financial income, EUR 225 thousand (previous year: EUR 57 thousand) is attributable to income from financial instruments measured at fair value and EUR 489 thousand (previous year: EUR 43 thousand) to income from cash equivalents measured at amortized cost.

EUR '000	2023	2022
Write-downs on securities	–	– 1,189
Interest expense on pension provisions	– 414	– 180
Arrangement and commitment fees	– 101	– 131
Interest expense on loans from banks	– 324	– 122
Interest expense on lease liabilities	– 108	– 70
Other interest and similar expenses	– 41	– 26
<b>Finance costs</b>	<b>– 988</b>	<b>– 1,718</b>

The finance costs for financial liabilities that are not measured at fair value through profit or loss amount to EUR – 432 thousand (previous year: EUR – 192 thousand) and are attributable to interest expense on loans from banks and lease liabilities.

## 5. Income taxes

EUR '000	2023	2022
Current tax expenses	– 8,164	– 6,961
Deferred tax expenses	– 7,612	– 7,365
Previous period tax charges (–) / income (+)	– 552	404
Deferred tax expenses (–) / income (+)	– 1,520	831
Credit from tax loss carryforwards	– 48	136
Other deferred taxes	– 1,472	695
<b>Income taxes</b>	<b>– 9,684</b>	<b>– 6,130</b>

Deferred tax income of EUR 283 thousand (previous year: deferred tax expenses of EUR 1,097 thousand) was recognized directly in equity outside profit or loss. These are attributable to effects recognized in equity for pension provisions.

The difference between the expected income tax expense and the tax expense actually reported is shown in the reconciliation in the following. The tax rate of 29 percent applicable for fiscal year 2023 (previous year: 29 percent) was multiplied by result before taxes to determine the expected tax expense. This tax rate is a combined income tax rate comprising the standard corporate income tax rate of 15 percent (previous year: 15 percent) plus a solidarity surcharge of 5.5 percent (previous year: 5.5 percent) and an effective trade tax rate of 13.6 percent (previous year: 13.6 percent). The country-specific income tax rates used for foreign companies were between 17 percent and 28 percent in fiscal year 2023 (previous year: between 17 percent and 28 percent).

EUR '000	2023	%	2022	%
Net result before tax	34,106		23,788	
Expected tax expenses	- 9,891	- 29	- 6,899	- 29
Tax payable abroad	293	1	218	1
Changes in tax rate differences from different trade tax rates	- 143	0	13	0
Increase in taxes due to non-deductible expenses	206	1	- 188	- 1
Tax reductions due to tax-free income	2	0	106	0
Effects concerning deferred tax assets from tax loss carryforwards	- 8	0	- 107	0
Tax back payments (-) / tax refunds (+) for previous years	- 552	- 2	404	2
Other tax effects	408	1	323	1
Current tax expenses	- 9,684	- 28	- 6,130	- 26

Deferred taxes were measured according to the time of their realization at the tax rate stated or, for foreign companies, at the country-specific tax rates. Deferred taxes from tax rate differences of foreign companies are attributable to the fact that PVA TePla Group subsidiaries outside Germany are subject to different tax rates than those prevailing in Germany.

## Presentation of material accounting policies

Current tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authority. The amount is calculated based on the tax rates and tax laws that have been enacted or substantively enacted at the reporting date in the countries in which the PVA TePla Group operates and generates taxable income. Current taxes relating to items that are required to be recognized directly in equity are not recognized in profit or loss but also directly in equity.

Please refer to the relevant comments on the material accounting policies in note 13 on the accounting for deferred taxes.

Other taxes, such as transaction taxes or taxes on assets and capital, are reported as operating expenses.



## 6. Earnings per share

	2023	2022
<b>Numerator (EUR thousand):</b>		
Consolidated net profit for the period	24,421	17,658
<b>Denominator (shares):</b>		
Weighted average number of no-par shares outstanding	21,749,988	21,749,988
<b>Earnings per share ((in EUR): (basic/diluted)</b>	<b>1.12</b>	<b>0.81</b>

No options were issued in fiscal year 2023 or in the previous year that would entitle employees, Management Board members or Supervisory Board members to acquire shares of PVA TePla AG. This means that there are no dilutive effects on earnings per share for fiscal years 2023 or 2022.

## 7. Supplementary information about the type of expenses

### Cost of materials

EUR '000	2023	2022
Cost of raw materials, consumables and supplies and of goods purchased and held for resales	– 133,171	– 90,302
Cost of purchased services	– 12,519	– 9,256
<b>Total cost of materials</b>	<b>– 145,690</b>	<b>– 99,558</b>

Cost of materials is included in cost of sales. The materials ratio (cost of materials/total revenue) was 55.3 percent in fiscal year 2023, compared with 48.5 percent in 2022.

### Personnel expenses

EUR '000	2023	2022
Wages and salaries	– 53,587	– 44,056
Social charges	– 9,541	– 8,170
<b>Total staff costs</b>	<b>– 63,128</b>	<b>– 52,226</b>

Personnel expenses decreased as a proportion of revenue to 24.0 percent in fiscal year 2023, compared with 25.4 percent in the previous year. The absolute increase is mainly due to new hires. Social security contributions in fiscal year 2023 include retirement benefit expenses of EUR 294 thousand (previous year: EUR 382 thousand).

### Number of employees by function

Number of employees by function (average for year)	2023	2022
Production and service	405	329
Engineering, research and development	118	108
Sales	104	95
Administration	90	73
<b>Total</b>	<b>717</b>	<b>605</b>

The average number of employees is calculated without including members of governing bodies, apprentices/trainees, marginal part-time employees, employees on parental leave and employees on long-term sick leave. In fiscal year 2023, an average of 35 apprentices/trainees (previous year: 33) and 20 marginal part-time employees, employees on parental leave and employees on long-term sick leave (previous year: 20) were also employed.

### Depreciation, amortization and impairment losses

EUR '000	2023	2022
Intangible assets	- 2,150	- 785
Right-of-use assets	- 1,310	- 1,118
Property, plant and equipment	- 3,689	- 3,037
<b>Depreciation, amortization and impairment</b>	<b>- 7,149</b>	<b>- 4,940</b>

## F. Disclosures on the consolidated statement of balance sheet

### 8. Intangible assets

EUR '000	Goodwill	Other intangible assets	Advance payments	Total
<b>Cost</b>				
Jan. 1, 2022	12,764	9,610	23	22,397
Exchange differences	-	8	-	8
Changes to the companies included in consolidation	5,761	4,416	-	10,177
Additions	-	405	-	405
Disposals	-	- 18	-	- 18
Transfers	-	411	- 23	388
Dec. 31, 2022	18,525	14,832	-	33,357
Jan. 1, 2023	18,525	14,832	-	33,357
Exchange differences	-	- 5	-	- 5
Changes to the companies included in consolidation	-	-	-	-
Additions	-	162	90	252
Disposals	-	-	-	-
Transfers	-	8	- 8	-
Dec. 31, 2023	18,525	14,997	82	33,603
<b>Accumulated amortization, depreciation and write-downs</b>				
Jan. 1, 2022	4,850	7,142	-	11,992
Exchange differences	-	7	-	7
Changes to the companies included in consolidation	-	79	-	79
Additions	-	785	-	785
Disposals	-	- 3	-	- 3
Transfers	-	-	-	-
Dec. 31, 2022	4,850	8,010	-	12,860
Jan. 1, 2023	4,850	8,010	-	12,860
Exchange differences	-	- 5	-	- 5
Changes to the companies included in consolidation	-	-	-	-
Additions	-	2,151	-	2,151
Disposals	-	-	-	-
Transfers	-	-	-	-
Dec. 31, 2023	4,850	10,156	-	15,006
<b>Net carrying amounts</b>				
Dec. 31, 2023	13,675	4,840	82	18,597
Dec. 31, 2022	13,675	6,822	-	20,497

The intangible assets of the PVA TePla Group mainly comprise goodwill and software in connection with business combinations. There are currently no other intangible assets with indefinite useful lives.

The goodwill impairment test was carried out at the level of the smallest cash-generating units (CGUs) within the PVA TePla Group listed in the following, and thus at the lowest level at which goodwill is monitored for internal management purposes.

### Cash-generating units (CGUs)

EUR '000	Dec. 31, 2023	Dec. 31, 2022
M.P.A. Industrie SAS, La Chapelle-d'Aurec, France	5,761	5,761
PVA TePla Analytical Systems GmbH, Westhausen, Germany	4,831	4,831
PVA Crystal Growing Systems GmbH, Wettenberg, Germany	2,734	2,734
PVA Metrology & Plasma Solutions GmbH, Wettenberg, Germany	193	193
PVA SPA Software Entwicklungs GmbH, Coburg, Germany	90	90
PVA Industrial Vacuum Systems GmbH, Wettenberg, Germany	50	50
OKOS Solutions, LLC, Manassas, USA	16	16
Goodwill	13,675	13,675

In the Semiconductor Systems operating segment, goodwill is tested separately for impairment for five cash-generating units. In addition to PVA TePla Analytical Systems GmbH, whose registered office is in Westhausen, Germany, PVA Crystal Growing Systems GmbH, whose registered office is in Wettenberg, Germany, has been accounted for as a separate cash-generating unit since 2015. PVA Metrology & Plasma Solutions GmbH, Wettenberg, Germany, has likewise been accounted for as a separate cash-generating unit since 2015. The goodwill of PVA SPA Software Entwicklungs GmbH, whose registered office is in Coburg, Germany – which is also accounted for as an independent cash-generating unit – was added in fiscal year 2018. Acquired in fiscal year 2020, OKOS Solutions, LLC, based in Manassas, USA, is another separate cash-generating unit of the Semiconductor Systems operating segment.

Goodwill has been tested separately for impairment in the Industrial Systems operating segment for two cash-generating units since fiscal year 2022. PVA Industrial Vacuum Systems GmbH, whose registered office is in Wettenberg, Germany, has been a cash-generating unit since 2015. The goodwill of M.P.A. Industrie SAS, whose registered office is in La Chapelle d'Aurec, France, was added in fiscal year 2022.

Recoverable amount is determined for each cash-generating unit as the value in use by applying the discounted cash flow method. Key assumptions include assumptions regarding changes in order intake, revenue, margins, investments and personnel. These figures are based on past experience and also take into account foreseeable future developments. The assumptions underlying the key planning indicators (such as cash flow, revenue growth, discount rates) reflect past experience and were made in accordance with external information sources. Planning is based on a three-year financial planning horizon. For the period thereafter, a cash flow growth rate of 0.5 percent (previous year: 0.5 percent) is applied for the purposes of impairment testing. The underlying USD/EUR exchange rate is 1.0811 (previous year: 1.1549). The

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segment-specific discount rate used in the goodwill impairment tests was derived from the weighted average cost of equity and debt in the industry, based on the capital asset pricing model (WACC approach). The cost of equity is based on a risk-free capital market interest rate for the period in question, taking into account the beta factor for the industry and a risk premium related to the relevant capital market. A pretax discount rate was derived from this, based on the tax situation. The pretax cost of capital for the CGUs assessed was between 14.3 percent and 15.3 percent (previous year: between 12.7 percent and 14.0 percent).

The following developments were assumed for cash-generating units with significant goodwill:

In the product area of crystal growing systems (PVA Crystal Growing Systems GmbH), percentage revenue growth in the low double-digit range is expected for the next fiscal year, which will decrease in the following two fiscal years 2025 and 2026 (detailed planning period). In the product area of CVD systems (M.P.A. Industrie SAS), significant revenue growth is assumed for the next two fiscal years, which will decrease in the final year of the detailed planning period (2026). By contrast, moderate percentage revenue growth in the mid-single-digit range is expected in the measurement systems product area (PVA TePla Analytical Systems GmbH) over the next three fiscal years (up to the end of the detailed planning period). In light of the high level of revenue actually achieved in the measurement systems product area in fiscal years 2022 and 2023, the management of the PVA TePla Group is anticipating that investment activities will normalize in the detailed planning period. In all product areas, a growth rate of the perpetual annuity of 0.5 percent was assumed (unchanged from the previous year).

The goodwill impairment test did not result in any need to recognize impairment losses in either fiscal year 2023 or the previous year. As part of a sensitivity analysis for the PVA TePla Group's cash-generating units (CGUs) to which material goodwill has been allocated, an increase in the discount rates by one percentage point, a reduction in the long-term growth rate by 0.5 percentage point and a 25 percent reduction in cash flow were assumed. None of the parameter changes described above, either in isolation or in combination, lead to an impairment requirement for a cash-generating unit.

As the Russia-Ukraine conflict is constantly evolving, the forecasts made in fiscal year 2023 are subject to not inconsiderable uncertainty regarding the duration and extent of the impact on cash flows. PVA TePla's management prepared the underlying estimates and assumptions on the basis of the best information available and applied a scenario according to which there will be no long-term economic impact.

## Presentation of material accounting policies

Separately acquired intangible assets are measured at cost on initial recognition. The cost of intangible assets acquired in a business combination correspond to their fair values at the acquisition date. Purchased goodwill is recognized under "Intangible assets" in the PVA TePla Group's consolidated balance sheet position. A condition for recognizing internally generated intangible assets is that these assets will generate probable economic benefits for the PVA TePla Group and that the costs can be reliably determined. Internally generated goodwill cannot be recognized.

The PVA TePla Group does not capitalize any development costs, with the result that research and development expenditures are recognized in profit and loss in the period in which they are incurred. Research and development activities in the PVA TePla Group are tightly interconnected in an iterative manner, meaning that research and development activities and hence research and development costs cannot generally be reliably distinguished from one another. Moreover, the assessment of probable economic benefits is generally uncertain in light of unknown market developments going forward.

With the exception of goodwill, the PVA TePla Group's consolidated financial statements only include intangible assets with finite useful lives. For measurement subsequent to initial recognition, these assets are measured at cost less accumulated depreciation or amortization (straight-line depreciation or amortization over the contractual or estimated useful life) and accumulated impairment losses. Amortization charges on intangible assets are allocated to the functions that use them. The relevant useful lives are reviewed annually and, if necessary, adjusted prospectively in line with future expectations. The useful lives of intangible assets recognized by the PVA TePla Group range from three to eight years.

## Goodwill impairment

Goodwill is tested for impairment once a year (in the fourth quarter) within the PVA TePla Group. In addition, an impairment test is performed if circumstances indicate that the value of goodwill may be impaired. Goodwill is tested for impairment in a one-step process at the level of the PVA TePla Group's cash-generating units (CGUs) to which goodwill has been allocated. The impairment test compares the carrying amount of a cash-generating unit with its recoverable amount. If the carrying amount exceeds the recoverable amount, the carrying amount is reduced to the recoverable amount through profit or loss. The impairment loss is initially allocated to goodwill and, for amounts in excess of this, is allocated proportionately to the assets of the CGU, taking specific restrictions into account. An impairment loss may not be subsequently reversed if the reasons for a goodwill impairment recognized in previous years no longer apply.

## Impairment of other intangible assets, property, plant and equipment as well as right-of-use-assets

For right-of-use assets, property, plant and equipment as well as intangible assets with finite useful lives, the PVA TePla Group examines at each reporting date whether there are any indications of impairment. If facts or changes in circumstances indicate that the carrying amount of an asset may not be recoverable, it is subjected to an impairment test. There were no indications that the PVA TePla Group was required to perform impairment tests at either the fiscal year 2023 reporting date or the previous year's reporting date.

## 9. Property, plant and equipment

EUR '000	Land	Technical equipment and machinery	Equipment, fixtures and fittings	Assets under construction	Total
<b>Cost</b>					
Jan. 1, 2022	33,784	12,535	10,065	200	56,584
Exchange differences	12	82	29	-	123
Changes to the companies included in consolidation	2,276	216	363	-	2,855
Additions	1,431	2,089	2,641	418	6,579
Disposals	- 5	- 530	- 721	- 420	- 1,676
Transfers	-	-	32	-	32
Dec. 31, 2022	37,498	14,392	12,409	198	64,497
Jan. 1, 2023	37,498	14,392	12,409	198	64,497
Exchange differences	- 18	- 122	- 25	- 6	- 171
Changes to the companies included in consolidation	-	-	-	-	-
Additions	358	799	1,669	8,684	11,509
Disposals	-	- 243	- 255	-	- 498
Transfers	3,727	181	42	- 3,950	-
Dec. 31, 2023	41,566	15,006	13,840	4,927	75,338
<b>Accumulated amortization, depreciation and write-downs</b>					
Jan. 1, 2022	14,238	7,686	5,836	-	27,761
Exchange differences	6	105	19	-	130
Changes to the companies included in consolidation	200	87	150	-	437
Additions	944	847	1,246	-	3,037
Disposals	- 5	- 524	- 334	-	- 863
Transfers	-	-	-	-	-
Dec. 31, 2022	15,383	8,201	6,917	-	30,501
Jan. 1, 2023	15,383	8,201	6,917	-	30,501
Exchange differences	- 5	- 46	- 12	-	- 63
Changes to the companies included in consolidation	-	-	-	-	-
Additions	1,138	1,005	1,546	-	3,689
Disposals	-	- 228	- 207	-	- 435
Transfers	-	-	-	-	-
31.12.2023	16,516	8,932	8,244	-	33,692
<b>Net carrying amounts</b>					
Dec. 31, 2023	25,049	6,074	5,595	4,927	41,646
Dec. 31, 2022	22,115	6,191	5,492	198	33,997

As part of government economic development programs, the PVA TePla Group has received financial incentives from various public agencies to construct production facilities. Investment subsidies and tax-free investment grants received are deducted from the carrying amount of the relevant assets.

As in the previous year, land is encumbered with land charges amounting to EUR 18,000 thousand to secure the financing facility in the form of a syndicated loan agreement.

There are no other material restrictions on ownership or disposal of the reported property, plant and equipment.

No impairment losses were recognized on property, plant and equipment in either fiscal year 2023 or the previous year.

## Presentation of material accounting policies

Property, plant and equipment is recognized at cost less accumulated straight-line depreciation and accumulated impairment losses. Cost comprises expenses directly attributable to acquisition. Investment subsidies and tax-free investment grants received are deducted from the carrying amount of the relevant assets. The cost of property, plant and equipment acquired in a business combination corresponds to their fair values at the acquisition date. Subsequent costs are recognized as part of the cost of the assets solely if it is likely there will be a future economic benefit for the PVA TePla Group and the costs can be reliably determined.

Depreciation is recognized on a straight-line basis over the expected useful life or, in the case of leasehold improvements, over the shorter term of the lease. Depreciation charges on property, plant and equipment are allocated to the functions that use the assets. As before, depreciation is generally based on the following economic useful lives:

	Years
Buildings	25 – 33
Technical equipment and machinery	3 – 20
Other equipment, operating and office equipment	2 – 14

Please refer to the relevant comments on the material accounting policies in note 8 on information on the impairment of property, plant and equipment.

Maintenance and repair expenses are recognized in profit or loss as incurred. Cost and related accumulated depreciation and impairment losses are derecognized when items of property, plant and equipment are scrapped or sold, and any book gains or losses are recognized in profit or loss under "Other operating income" (book gains) or "Other operating expenses" (book losses).



## 10. Non-current financial assets

EUR '000	Dec. 31, 2023	Dec. 31, 2022
Non-current securities	9,001	9,001
Trade receivables	1,688	1,706
Other non-current receivables	10	18
<b>Gross value</b>	<b>10,699</b>	<b>10,725</b>
Less impairment losses	- 1,688	- 1,706
<b>Non-current financial assets</b>	<b>9,011</b>	<b>9,019</b>

Non-current financial assets mainly comprise non-current financial investments. Non-current financial assets also include trade receivables that are already due or due shortly if they are not expected to be realized within 12 months after the reporting date.

EUR '000	2023	2022
Write-downs on January 1	1,706	1,714
Currency exchange differences	-	-
Additions	-	-
Utilization	-	-
Reversals	- 18	- 8
<b>Write-downs on December 31</b>	<b>1,688</b>	<b>1,706</b>

The reversal of impairment losses of EUR 18 thousand recognized in fiscal year 2023 (previous year: reversal of EUR 8 thousand) is attributable to payments received in connection with previously impaired non-current receivables.

## Presentation of material accounting policies

The financial assets of the PVA TePla Group mainly comprise cash and cash equivalents (including term deposits), current and non-current trade receivables, financial investments (equities, bonds, fund shares, etc.) and derivative financial instruments. Financial assets are recognized in the consolidated balance sheet if the PVA TePla Group has a contractual right to receive cash or other financial assets from a third party.

### Non-derivative financial assets

Debt instruments are classified in one of the following two categories on initial recognition:

- measurement at amortized cost;
- or
- measurement at fair value through profit or loss.

Classification is based on the business model for managing the debt instruments and the contractual cash flow characteristics. Debt instruments that are held within a business model whose objective is to collect contractual cash flows where the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding are measured at amortized cost. Debt instruments held that are not measured at amortized cost are measured at fair value through profit or loss. The debt instruments held by the PVA TePla Group are mainly cash, cash equivalents (including term deposits) and trade receivables, which are allocated to the “measurement at amortized cost” measurement category.

Equity instruments are measured at fair value at each reporting date. If equity instruments are held for trading, they are recognized at fair value through profit or loss. There is an option for all other equity instruments to recognize changes in the fair value in other comprehensive income. The option is examined on an instrument-specific basis and irrevocably determined. To date, the PVA TePla Group has not made use of the option to recognize changes in the fair value of equity instruments in other comprehensive income. The equity instruments held by the PVA TePla Group are mainly equities and fund shares that are allocated to the “measurement at fair value through profit or loss” measurement category.

Impairment losses are recognized for debt instruments measured at amortized cost in the amount of the expected credit loss. They are adjusted at each reporting date to reflect the change in the credit risk of the relevant financial instruments since initial recognition and are generally based on the amount of the lifetime expected credit losses. For trade receivables, the PVA TePla Group uses a simplified model to record the expected credit loss on the basis of an impairment matrix. Please refer to the relevant explanations under note 12 for additional information.

### Derivative financial instruments

In individual cases, the PVA TePla Group enters into forward exchange contracts if needed to hedge exchange rate risks in connection with sales in foreign currencies (exchange rate hedges) and interest rate hedges to hedge interest rate risks in connection with investment financing (interest rate hedges). Such derivatives are measured at fair value both on initial recognition and on subsequent measurement. Any resulting changes are generally recognized in profit or loss. The PVA TePla Group does not make any use of the option to designate a corresponding hedging relationship (hedge accounting).

In the case of exchange rate hedges, the measurement effects on the fair value of the derivative resulting from exchange rate changes are recognized as a component of other operating expenses or other operating income. By contrast, the corresponding changes in the fair value of interest rate hedges are recognized in financial result ("Financial income" or "Finance costs"). All derivative financial instruments are reported in the consolidated balance sheet under "Other financial assets" in the case of a positive fair value and under "Other liabilities" in the case of a negative fair value (in both cases current items).

### Fair value measurement

The PVA TePla Group measures certain financial instruments at fair value at each reporting date. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value measurement assumes that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability or, if no principal market exists, in the most advantageous market for the asset or liability.

The PVA TePla Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data is available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs. All assets and liabilities for which fair value is determined or reported in the consolidated financial statements are categorized in the measurement hierarchy described below, based on the lowest level input that is significant to fair value measurement as a whole:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: valuation techniques in which the lowest level input that is significant to fair value measurement as a whole is directly or indirectly observable in the market; or
- Level 3: valuation techniques in which the lowest level input that is significant to fair value measurement as a whole is not observable in the market.

## 11. Inventories

EUR '000	Dec. 31, 2023	Dec. 31, 2022
Raw materials and operating supplies	43,414	38,362
Work in progress	57,122	41,844
Finished products and goods	1,347	618
<b>Gross value</b>	<b>101,883</b>	<b>80,824</b>
Less impairment losses	– 7,282	– 5,828
<b>Inventories</b>	<b>94,601</b>	<b>74,996</b>

Changes in impairment losses amounting to EUR – 1,454 thousand were recognized in profit or loss in fiscal year 2023 (previous year: EUR – 915 thousand).

### Presentation of material accounting policies

Inventories are recognized at cost using the weighted average cost method or at lower net realizable values. In addition to directly attributable costs, production cost also includes production and material overheads as well as depreciation and impairment losses. Fixed overheads are recognized on the basis of normal capacity utilization of the production facilities. Impairment losses are recognized on inventories if cost exceeds the expected net realizable value. Net realizable value is the estimated selling price less the costs incurred until the sale.

## 12. Trade receivables, other financial assets and contract asset

EUR '000	Dec. 31, 2023	Dec. 31, 2022
Trade receivables concerning product sales and services	36,528	29,679
Advance payments	13,875	17,984
Other current receivables	7,113	7,372
Securities	–	18,906
Contract assets	50,613	40,466
<b>Gross value</b>	<b>108,129</b>	<b>114,407</b>
Less impairment losses	– 500	– 373
<b>Trade receivables, other financial assets and contract assets</b>	<b>107,629</b>	<b>114,034</b>

Trade receivables do not bear interest and are generally due within 30 to 90 days.

EUR '000	Dec. 31, 2023	Dec. 31, 2022
POC receivables (gross value)	92,148	56,383
Less advance payments received	– 58,383	– 39,111
<b>Subtotal</b>	<b>33,765</b>	<b>17,272</b>
Contract assets (not including POC method)	2,207	4,495
Unconditional payment entitlements (down payment invoices)	14,641	18,699
<b>Contract assets</b>	<b>50,613</b>	<b>40,466</b>

EUR '000	2023	2022
Write-downs on January 1	– 373	– 235
Additions	– 185	– 139
Utilization	–	–
Reversals	+ 58	+ 1
<b>Write-downs on December 31</b>	<b>– 500</b>	<b>– 373</b>

## Presentation of material accounting policies

Trade receivables are recognized from the time they arise at the fair value of the consideration given (transaction price). Trade receivables are generally not discounted as they do not usually contain any significant financing components and as a rule are due within one year.

Contract assets include customer-specific system production contracts recognized over time using the POC method where the contract costs incurred, including profit shares, exceed the prepayments received (gross amount due from customers). Prepayments already invoiced and due (but not yet paid) are likewise recognized and reported as contract assets. In addition, contract assets include performance obligations already satisfied by the PVA TePla Group for which a legally enforceable claim for payment only arises at a later date (e. g. on final acceptance).

Trade receivables and contract assets are subsequently recognized at amortized cost (historical cost less recognized impairment losses). The PVA TePla Group uses a simplified method for calculating expected credit losses based on calculated loss rates (expected credit loss model) to determine impairment losses. Under this method, the impairment losses are determined using an impairment matrix based on historical experience of credit losses and adjusted for forward-looking factors specific to the borrower and the economic environment. A special review of credit risk is carried out on a case-by-case basis for credit-impaired trade receivables and contract assets. Indicators that an asset may be credit-impaired notably include significant financial difficulty of the debtor or the likelihood of insolvency. Impairment losses are recognized in the income statement using an allowance account. If it emerges in subsequent periods that the reasons for impairment no longer apply, the impairment loss is reversed through profit or loss up to a maximum of the original cost. Impairment testing of doubtful trade receivables and contract assets requires estimates to be made about customers' credit quality. Any deterioration in customer financial data may lead to differences in relation to the expected impairment losses.

### 13. Deferred tax assets/liabilities

EUR '000	Dec. 31, 2023		Dec. 31, 2022	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Non-current assets	702	2,373	455	2,260
Inventories	5,848	149	3,276	–
Trade receivables	4	9,579	–	5,247
Tax loss carryforwards	732	–	780	–
Retirement pension provisions	925	–	829	–
Other provisions	915	707	448	620
Financial liabilities	871	–	785	–
Others	–	–	8	–
<b>Total</b>	<b>9,997</b>	<b>12,808</b>	<b>6,581</b>	<b>8,127</b>
<b>Balance of deferred tax</b>	<b>– 2,811</b>		<b>– 1,546</b>	

Tax loss carryforwards are reviewed for potential utilization based on a multiyear budget and recognized using a company-specific tax rate. Loss carryforwards were recognized if this analysis indicated that they may be utilized in a period of between two and five years. Loss carryforwards are classified as fully recoverable if they are likely to be utilized within the forecast period. There are losses of EUR 306 thousand (previous year: EUR 547 thousand) which are unlikely to be utilized within the forecast period. These were not classified as recoverable and hence no deferred taxes were recognized in respect of them.

Similarly, no deferred taxes were recognized in respect of temporary measurement differences between the tax base of the equity investments and the related net assets in the individual IFRS statements of financial position (outside basis differences), as PVA TePla AG is able to control the timing of the reversal of the temporary differences and there are no plans to sell the equity investments for an indefinite period. The total retained earnings of PVA TePla Group subsidiaries relevant in this context amounted to EUR 32,035 thousand as of December 31, 2023 (previous year: EUR 22,451 thousand).

## Presentation of material accounting policies

Deferred tax assets and liabilities are recognized for all temporary differences between the tax base of assets and liabilities and their carrying amounts in the IFRS consolidated balance sheet position. In addition, deferred tax assets must be recognized in respect of loss carryforwards if it is likely that these can be used in the future. The carrying amount of deferred tax assets is reviewed at each reporting date and reduced if it is no longer probable that sufficient taxable income will be available to realize the asset in full or in part.

Deferred tax assets and liabilities are recognized in the amount of the expected tax liability or benefit in subsequent fiscal years on the basis of the tax rate applicable at the time of realization. Deferred tax assets and deferred tax liabilities are offset if the PVA TePla Group has a legally enforceable right to set off current income tax assets against current tax liabilities, and if the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on the same taxable entity. Deferred tax assets and liabilities are not discounted and are presented as non-current assets and liabilities in the consolidated balance sheet position.

Current and deferred taxes are recognized as income or expense in profit or loss unless they relate to items that are recognized directly in equity. In this case, the taxes are also recognized directly in equity.

Recognition of deferred tax assets in respect of loss carryforwards is based on estimates that are highly dependent on the earnings performance of the taxable entities concerned. This means that the actual amounts arising in future periods may differ from the estimates.



## 14. Financial liabilities

EUR '000	Dec. 31, 2023			Dec. 31, 2022		
	Current	Non-current	Total	Current	Non-current	Total
Liabilities from leases	1,653	1,349	3,002	1,170	1,538	2,708
Loans from credit institutes	3,356	11,430	14,786	4	1,574	1,578
Settlement accounts for former owners of MPA	–	–	–	4,327	–	4,327
Earn out	282	1,679	1,961	300	1,961	2,261
<b>Total</b>	<b>5,291</b>	<b>14,458</b>	<b>19,749</b>	<b>5,801</b>	<b>5,073</b>	<b>10,874</b>

PVA TePla AG has a financing facility in the form of a syndicated loan agreement (club deal). The club deal was entered into in November 2020 for a basic term of five years. The term was extended by one year in 2021 and 2022 in each case by exercising the contractual extension options (term ends in November 2027). As of December 31, 2023, the financing facility has a total volume of EUR 160 million (previous year: EUR 160 million), which is divided into a cash and guarantee line of EUR 20 million (previous year: EUR 20 million), a credit line for M&A activities of EUR 20 million (previous year: EUR 20 million) and another guarantee line of EUR 120 million (previous year: EUR 120 million). In addition, the consortium partners granted further bilateral guarantee lines of EUR 30 million in both fiscal year 2023 and the previous year. As of December 31, 2023, guarantee lines totaling EUR 95.4 million (previous year: EUR 115.9 million) had been utilized. As of the December 31, 2023 reporting date, a total of EUR 13.2 million (previous year: EUR 0) of the cash lines had been drawn down. Of this amount, EUR 10 million is attributable to long-term utilization and a further EUR 3.2 million to short-term utilization. Interest is charged at EURIBOR plus a sliding margin based on the debt-equity ratio. The syndicated loan agreement defines financial covenants for compliance with standard financial ratios. These financial covenants were met in both fiscal year 2023 and the previous year.

PVA TePla AG also has a further working capital line of EUR 500 thousand, which had not been utilized as of the reporting date (as in the previous year).

Payment obligations from recognized leases are structured as follows:

EUR '000	2023	2022
<b>Due</b>		
≤ one month	135	98
> one month and ≤ three months	272	188
> three months and ≤ one year	1,133	801
> one year and ≤ five years	1,462	1,622
> five years	–	–

Payment obligations from loans from banks are structured as follows:

EUR '000	2023	2022
Due		
≤ one month	3,225	4
> one month and ≤ three months	24	–
> three months and ≤ one year	108	–
> one year and ≤ five years	10,534	545
> five years	896	1,029

Payment obligations from earn-out liabilities are structured as follows:

EUR '000	2023	2022
Due		
≤ one month	–	–
> one month and ≤ three months	–	–
> three months and ≤ one year	282	300
> one year and ≤ five years	1,814	2,122
> five years	–	–

## Presentation of material accounting policies

In addition to derivative financial instruments, the PVA TePla Group's financial liabilities notably comprise lease liabilities, liabilities from variable purchase price components for acquisitions (earn-out liabilities), loans from banks and trade liabilities. Financial liabilities are recognized in the consolidated balance sheet if the PVA TePla Group has a contractual obligation to transfer cash or other financial assets to a third party.

### Non-derivative financial liabilities

Financial liabilities are classified in one of the following two categories on initial recognition:

- measurement at amortized cost;  
or
- measurement at fair value through profit or loss.

The PVA TePla Group only measures derivative financial liabilities and liabilities from company acquisitions with variable purchase price components (earn-out liabilities) at fair value through profit or loss.

On initial recognition, all financial liabilities are measured at fair value (less any directly attributable transaction costs). In the course of subsequent measurement, financial liabilities allocated to the "fair value through profit or loss" category are measured at fair value at each reporting date, and net gains or losses are recognized in the consolidated income statement. All other financial liabilities are subsequently measured at amortized cost using the effective interest method. These include in particular trade payables, which generally do not bear interest and are due within 30 to 60 days. Interest expenses and foreign currency translation differences are recognized in profit or loss, as are gains or losses from the derecognition of financial liabilities.

### Derivative financial instruments

Please refer to the relevant information on the material accounting policies in note 12.

## 15. Pension provisions

Provisions for retirement benefit obligations are recognized on the basis of pension plans for retirement, disability and surviving dependents' benefits. The amount of the benefits generally depends on the length of service and the employee's remuneration.

There are pension commitments at PVA TePla AG, PVA Industrial Vacuum Systems GmbH, PVA Crystal Growing Systems GmbH, PVA SPA Software Entwicklungs GmbH and PVA Vakuum Anlagenbau Jena GmbH, all of which are based in Germany. These are exclusively legacy commitments. New pension commitments are no longer made. There are no retirement benefit obligations outside Germany. The PVA TePla Group has no material plan assets to cover retirement benefit obligations.

Actuarial reports were obtained to measure the retirement benefit obligations. The biometric parameters were determined in accordance with the 2018 G mortality tables published by Prof. Dr. Klaus Heubeck. Risks from the recognition of retirement benefit obligations relate to risks from changes in actuarial parameters, which are shown in the table below. The most significant risk of change relates to the discount rate.

in %	Dec. 31, 2023	Dec. 31, 2022
Income trend	3.00	3.00
Pension trend	1.25 – 2.50	1.25 – 2.50
Staff turnover	0 – 1.50	0 – 1.50
Interest rate	3.15 % – 3.57 %	3.70 % – 4.25 %

EUR '000	2023	2022
Present value of future pensions on Jan. 1	11,453	15,886
Additions through company acquisition	–	227
Current service expense for services provided by employees in the fiscal year	46	82
Interest expense	414	180
Changes in the estimation of financial reporting	–	–
Pension payments	– 1,120	– 619
Actuarial gains (-) and losses (+)	977	– 4,303
Present value of future pensions on Dec. 31	11,770	11,453

Current service cost is recognized primarily in cost of sales as well as in general and administrative expenses.

As of the December 31, 2023 reporting date, there is an assumption that EUR 677 thousand (previous year: EUR 668 thousand) will have to be settled within the next twelve months and EUR 11,093 thousand (previous year: EUR 10,785 thousand) at a later date (in some cases very long-term). On December 31, 2023, the weighted average term of the defined benefit obligation was 11.5 years (previous year: 11.6 years).

## Sensitivity analyses

A change in the two key actuarial parameters of a quarter of a percentage point each, while maintaining the other assumptions, would change the present value of the projected benefit obligation as of the December 31, 2023, and December 31, 2022, reporting dates as follows:

EUR '000	Dec. 31, 2023		Dec. 31, 2022	
	Increase	Decrease	Increase	Decrease
Interest rate (0.25 % change)	- 135	+ 532	- 358	+ 269
Pension trend (0.25 % change)	+ 496	- 102	+ 234	- 326

## Defined contribution plans

Defined contribution plans are relevant for PVA TePla AG in the form of statutory employer contributions to pension insurance, contributions to pension funds and contributions to direct insurance policies. Expenses of EUR 4,168 thousand (previous year: EUR 3,554 thousand) were incurred for this purpose in fiscal year 2023.

## Presentation of material accounting policies

Pension provisions for defined benefit plans are calculated using the projected unit credit method, which is based on key assumptions such as discount factors, mortality rates, salary and pension trends. Remeasurements consisting of actuarial gains and losses are recognized in other comprehensive income. The remeasurements recognized in other comprehensive income are a component of other reserves and are no longer reclassified to the income statement in subsequent periods. Past service cost is recognized as a personnel expense when the plan amendment materializes.

Defined benefit costs include both service cost and interest expense. The PVA TePla Group reports service cost in the income statement under operating expenses, while interest expense is reported under finance costs.

Payments for defined contribution plans are recognized as personnel expenses in the relevant functions if the work was performed by eligible employees.

## 16. Other provisions

EUR '000	Jan. 1, 2023	Changes to the companies included in consolidation	Utilization	Reversals	Additions	Dec. 31, 2023
Warranties	2,999	-	- 2,676	- 70	4,898	5,151
Subsequent costs	181	-	- 181	-	-	0
Archiving	54	-	-	-	-	54
Other	2,082	-	- 1,415	- 13	2,296	2,949
<b>Total</b>	<b>5,316</b>	<b>-</b>	<b>- 4,272</b>	<b>- 83</b>	<b>7,193</b>	<b>8,154</b>

In general, contracts with customers include defect notification and warranty periods following completion of the specific projects. These obligations are not considered to be separate performance obligations and are hence included in the total cost of the contracts as estimates. Where necessary, amounts are recognized under other provisions in accordance with IAS 37. Other provisions include non-current provisions for variable remuneration components and for archiving.

## 17. Contract liabilities

EUR '000	Dec. 31, 2023	Dec. 31, 2022
Contract liabilities (net exposure)	23,656	49,664
Advance payments received concerning product sales and services	71,612	63,846
<b>Contract liabilities</b>	<b>95,268</b>	<b>113,510</b>

An amount of EUR 60,420 thousand (previous year: EUR 66,716 thousand) of the customer prepayments of EUR 113,510 thousand (December 31, 2021: EUR 102,938 thousand) deferred in the balance sheet item "Contract liabilities" as of December 31, 2022 was recognized as sales revenues in fiscal year 2023.

EUR '000	Dec. 31, 2023	Dec. 31, 2022
Advance payments received	36,701	57,678
Less contract costs incurred (incl. share of profit)	- 13,045	- 8,014
<b>Contract liabilities (net exposure)</b>	<b>23,656</b>	<b>49,664</b>

"Contract liabilities (POC method)" include customer prepayments outstanding on the December 31, 2023 reporting date with legally enforceable payment claims amounting to EUR 3,971 thousand (previous year: EUR 1,820 thousand).

## G. Disclosures on the consolidated statement of cash flows

EUR '000	Dec. 31, 2023	Dec. 31, 2022
Cash in bank	10,320	12,465
Cash in hand	11	11
Cash investment	9,801	14,751
Cash funds according to the balance sheet	20,132	27,227
Term deposits with a remaining term of more than three months	- 6,168	- 11,625
Cash funds according to the consolidated cash flow statement	13,964	15,602

Payments for investments in intangible assets and property, plant and equipment only include cash investments. In fiscal year 2023, EUR 523 thousand (previous year: EUR 250 thousand) was reclassified from inventories to property, plant and equipment. This did not effect cash.

Changes in financial liabilities whose cash flows have been or will be reported as cash flows from financing activities in the consolidated statement of cash flows are presented in the following.

EUR '000	Jan. 1, 2023	Cash changes	Non-cash changes			Dec. 31, 2023
			Acquisitions	Currency effects	Other changes	
Non-current financial liabilities	5,073	9,574	-	-	- 189	14,458
Current financial liabilities	5,801	- 993	-	-	483	5,291
Total	10,874	8,581	-	-	294	19,749

EUR '000	Jan. 1, 2022	Cash changes	Non-cash changes			Dec. 31, 2022
			Acquisitions	Currency effects	Other changes	
Non-current financial liabilities	1,223	-	3,535	-	315	5,073
Current financial liabilities	979	- 1,106	4,629	-	1,299	5,801
Total	2,202	- 1,106	8,164	-	1,614	10,874

## Presentation of material accounting policies

“Cash, cash equivalents and term deposits” reported in the consolidated balance sheet comprise cash in hand, immediately available cash in bank, term deposits and immediately available financial investments that are subject to a no more than insignificant risk of changes in value. Cash, cash equivalents and term deposits are measured at amortized cost. Please refer to the relevant explanations under note 10 for additional information. By contrast, cash and cash equivalents reported in the statement of cash flows only include cash equivalents and term deposits with a remaining term of no more than three months from the acquisition date.

The statement of cash flows reports the cash flows for the fiscal year in order to present information on the changes in cash and cash equivalents according to the PVA TePla Group’s statement of cash flows during the fiscal year. A distinction is made between the three areas of operating, investing and financing activities.

Cash flow from operating activities is calculated using the indirect method by adjusting consolidated result after tax for noncash transactions and transactions attributable to investing or financing activities. As with cash flow from financing activities, cash flow from investing activities is calculated using the direct method, i. e., by comparing gross cash inflows and outflows.



## H. Disclosures on the consolidated statement of changes in equity

### Share capital

As of December 31, 2023, the issued share capital of PVA TePla AG is composed of 21,749,988 no-par value shares (previous year: 21,749,988 no-par value shares) with a notional interest in the share capital of EUR 1.00 each.

### Conditional and authorized capital

The Management Board is authorized, with the approval of the Supervisory Board, to increase the share capital of PVA TePla AG by up to a maximum of EUR 5,437,497 by issuing up to 5,437,497 new no-par value bearer shares against cash and/or noncash contributions on one or more occasions until June 22, 2027 (Authorized Capital 2022/I).

Additionally, the share capital of PVA TePla AG is contingently increased by up to EUR 5,437,497.00 by issuing up to 5,437,497 new no-par value bearer shares (Conditional Capital 2022/I). Conditional Capital 2022/I serves exclusively to grant new shares to the holders of conversion rights or options issued by PVA TePla AG or by companies that are directly or indirectly wholly owned by PVA TePla AG in accordance with the authorization resolution of the Annual General Meeting on June 23, 2022.

By resolution of the Annual General Meeting on June 28, 2023, the Management Board of the company was authorized to acquire treasury shares in a volume of up to 10 percent of its share capital existing at the date of the resolution or – if this value is lower – at the date the authorization is exercised. Valid until June 27, 2028, the authorization may be exercised in full or in partial amounts, on one or several occasions, for one or several purposes by the company, by its Group companies or by third parties for its or their account. At the discretion of the Management Board, shares will be acquired on the stock market or by means of a public purchase offer to all shareholders. The consideration paid per share for the acquisition of shares on the stock market (excluding incidental acquisition costs) may not be more than 10 percent higher or lower than the average closing price on the three stock exchange trading days preceding the date on which the obligation to purchase the shares was entered into.

No capital increases were resolved in 2023 either from the Authorized Capital 2022/I or from the Conditional Capital 2022/I.

### Appropriation of profit

The Management Board and Supervisory Board are proposing to carry forward the net retained profits of EUR 14,744 thousand reported in the 2023 annual financial statements of PVA TePla AG (in accordance with German GAAP) to new account in the same amount. No withdrawals were made from the capital reserves or retained earnings.

### Reserves

The reserves reported in the consolidated balance sheet include net retained profits of EUR 108.4 million (previous year: EUR 84.0 million), retained earnings of EUR – 0.5 million (previous year: EUR – 0.5 million) and other reserves of EUR – 2.2 million (previous year: EUR – 1.1 million).

## I. Other disclosures

### 18. Segment reporting

The PVA TePla Group comprises the two operating segments Industrial Systems and Semiconductor Systems. It is managed, coordinated and controlled on the basis of these two operating segments. The business activities are combined in the two reported segments based on technology sectors. In this respect, segment reporting follows the organizational structure underlying the PVA TePla Group's internal management reporting systems (management approach).

#### Breakdown of revenue by operating segment

EUR '000	2023		2022	
	External sales revenues	Internal sales revenues	External sales revenues	Internal sales revenues
Segment revenues				
Industrial Systems	77,376	16,235	59,480	12,115
Semiconductor Systems	186,070	661	145,745	818
Total PVA TePla Group	263,466	16,896	205,225	12,933

Sales and revenues between the segments are generally transacted at arm's length conditions.

#### EBIT by operating segment

EUR '000	2023	2022
Segment information		
Industrial Systems	10,278	7,797
Semiconductor Systems	30,937	22,874
Holding costs	- 6,836	- 5,583
Total PVA TePla Group	34,379	25,088

#### Reconciliation of segment profit or loss to consolidated net result for the period

EUR '000	2023	2022
Operating result (EBIT)	34,379	25,088
Financial result	- 274	- 1,300
Net result before taxes	34,105	23,788
Income taxes	- 9,684	- 6,130
Consolidated net result for the period	24,421	17,658

## Sales revenues

EUR '000	2023	in %	2022	in %
Asia	113,940	43	80,239	39
Germany	63,342	24	73,396	36
Europe (excluding Germany)	61,337	23	28,827	14
North America	23,508	9	19,570	10
Other	1,319	1	3,193	1
Total operating profit PVA TePla Group	263,446	100	205,225	100

Sales revenues for fiscal year 2023 include revenues of EUR 105.4 million (previous year: EUR 39.5 million) with two customers (previous year: one customer) of the Group that each account for more than 10 percent of total sales revenues. Both customers relate to the Semiconductor Systems operating segment.

## 19. Additional disclosures on financial instruments

### Financial risks

The PVA TePla Group's financial liabilities primarily comprise lease liabilities, liabilities from variable purchase price components for acquisitions (earn-out liabilities), loans from banks and trade liabilities. The primary purpose of these financial liabilities is to finance the PVA TePla Group's operating activities. In addition to derivative financial instruments, the PVA TePla Group's financial assets mainly comprise cash and cash equivalents (including term deposits), current and non-current trade receivables and financial investments (equities, bonds, fund shares, etc.).

The PVA TePla Group is exposed to various financial risks in the course of its ordinary business activities. These include credit, liquidity and market risks (foreign currency and interest rate risks). The risk report, which is part of the combined management report, contains a description of the risk management system in terms of goals, methodologies and processes. Financial risk management is performed in accordance with the principles defined by the company. These govern the hedging of foreign currency, interest rate and credit risks, cash management as well as short and long-term financing. The goal is to reduce financial risks while balancing the hedging costs and the risks entered into. Where appropriate, derivative financial instruments are used to hedge underlying transactions. Derivative financial instruments are used exclusively as hedging instruments, i.e. they are not used for trading or other speculative purposes. To minimize counterparty risk, transactions are only entered into with pre-rated counterparties. The fundamentals of the financial policy are determined each year by the Management Board and monitored by the Supervisory Board. The Management Board is responsible for implementing the financial policy and for ongoing risk management.

### Credit risk

Credit risk is the risk that a business partner fails to meet its obligations under the terms of a financial instrument or customer master agreement, resulting in a financial loss. In the course of its operating activities, the PVA TePla Group is exposed to credit risk (particularly with regard to trade receivables) and risks in connection with financing activities, including those from deposits with banks and financial institutions, foreign exchange transactions and other financial instruments.

The PVA TePla Group grants supplier credits to a wide range of customers in the normal course of business. Theoretically, the maximum exposure to credit risk is reflected by the carrying amounts of the financial assets recognized in the consolidated balance sheet position. The PVA TePla Group recognized impairment losses of EUR – 185 thousand (previous year: EUR – 139 thousand) in profit or loss to cover identified risks from current and non-current trade receivables and contract assets in fiscal year 2023. Risks from prepayments are avoided by means of prepayment guarantees. There are no identifiable risks for other receivables. As in the previous year, there were no other significant agreements in the PVA TePla Group as of the December 31, 2023 reporting date that reduce the maximum exposure to credit risk.

Customers' credit quality is reviewed regularly. The risk of bad debt losses is mitigated by credit checks and dunning. In the operating business, outstanding receivables and contract assets are monitored locally on an ongoing basis, i. e. on a decentralized basis. The PVA TePla Group deploys appropriate control procedures to ensure that services are only provided to customers who have proven to be creditworthy in the past, and that the credit risk associated with these transactions remains reasonable. Appropriate impairment losses are recognized to reflect credit risks. The impairment requirement is analyzed at each reporting date using a provision matrix to determine the expected credit losses. Global valuation allowances are based on past experience with credit losses in the form of historical credit loss data and adjusted for forward-looking factors specific to the borrowers (e.g., expected insolvency default rates) and the economic environment. This methodology is used to identify default rates specific to risk clusters.

EUR '000	Dec. 31, 2023	Impairment matrix not applied	Impairment matrix			
			not past due	< 30 days past due	30 – 90 days past due	> 90 days past due
Trade receivables (gross carrying amount)	36,528	171	19,311	5,379	3,490	8,177
Contract assets (gross carrying amount)	50,613	–	50,613	–	–	–
Weighted average default rate (%) FY 2023	–	–	0.3 %	0.5 %	0.9 %	1.5 %
Weighted average default rate (%) FY 2022	–	–	0.3 %	0.3 %	0.4 %	0.6 %
<b>Impairment</b>	<b>– 500</b>	<b>– 107</b>	<b>– 212</b>	<b>– 27</b>	<b>– 31</b>	<b>– 123</b>

EUR '000	Dec. 31, 2022	Impairment matrix not applied	Impairment matrix			
			not past due	< 30 days past due	30 – 90 days past due	> 90 days past due
Trade receivables (gross carrying amount)	29,679	249	16,890	6,926	2,811	2,803
Contract assets (gross carrying amount)	40,466	–	40,466	–	–	–
Weighted average default rate (%) FY 2022	–	–	0.3 %	0.3 %	0.4 %	0.6 %
Weighted average default rate (%) FY 2021	–	–	0.2 %	0.3 %	0.4 %	0.6 %
<b>Impairment</b>	<b>– 373</b>	<b>– 156</b>	<b>– 168</b>	<b>– 21</b>	<b>– 11</b>	<b>– 17</b>

## Liquidity risk

Maintaining solvency at all times is extremely important for the PVA TePla Group. Revolving liquidity planning is prepared for the PVA TePla Group to ensure solvency at all times and the greatest possible financial flexibility. A liquidity reserve in the form of credit lines and cash is maintained, if necessary.

Please refer to the corresponding disclosures on the maturity of financial liabilities in note 14. Maturity analyses of derivative financial liabilities are described in the following section.

## Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market prices. Market risk includes foreign currency and interest rate risk.

**Foreign currency risk** is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. Exchange rate fluctuations affect the presentation of assets and liabilities in PVA TePla AG's consolidated financial statements, which are prepared in euros, to the extent that assets and liabilities are denominated in currencies other than the euro. Foreign currency risks are hedged if they have a material impact on the Group's cash flows.

In the context of operating activities, foreign currency risks result primarily from the fact that planned transactions are settled in a currency other than the functional currency (EUR). Such planned transactions relate in particular to forecast revenue that is invoiced in USD. To manage foreign currency risk, the PVA TePla Group endeavors to generate cash inflows and outflows with matching timing and currencies.

PVA TePla AG, PVA Metrology & Plasma Solutions GmbH and PVA TePla Analytical Systems GmbH enter into forward exchange contracts to hedge receivables. These derivative financial instruments have a maturity of up to one year and hedge receivables amounting to EUR 5,913 thousand as of December 31, 2023 (previous year: EUR 10,215 thousand). The expected net outflows from the currency hedging instruments are shown below.

EUR '000	Dec. 31, 2023	Dec. 31, 2022
Expected net payments		
≤ one month	- 6	- 91
> one month and ≤ three months	- 1.5	- 45
> three months and ≤ one year	84	289
> one year and ≤ five years	- 3	-

Interest income and expense relating to financial instruments are recorded in the functional currency (EUR) at the German companies. This means that foreign currency risk can only arise from the financial instruments and assets of the individual foreign companies that would be reflected in the currency reserves in other comprehensive income. For this reason, only an equity-related sensitivity analysis is shown below.

If the euro had appreciated (depreciated) by 10 percent against the US dollar as of December 31, 2023, the other reserves in equity would have been EUR 895 thousand lower (EUR 1,094 thousand higher) (previous year: EUR 768 thousand lower [EUR 939 thousand higher]).

If the euro had appreciated (depreciated) by 10 percent against the other currencies relevant for the company as of December 31, 2023, the other reserves in equity would have been EUR 293 thousand lower (EUR 358 thousand higher) (previous year: EUR 231 thousand lower [EUR 282 thousand higher]).

Interest rate risks arise in the context of non-current variable-rate liabilities. Such risks are minimized by the PVA TePla Group where necessary through interest rate hedging measures and continuous monitoring of global interest rate policy.

The company is exposed to interest rate risk mainly in the eurozone. Taking into account the existing and planned debt structure, the company uses interest rate derivatives (interest rate swaps) to mitigate interest rate risk.

With regard to both December 31, 2023 and December 31, 2022, there are no material interest rate risks for the PVA TePla Group from financial instruments relating to profit or loss for the period and other components of equity.

### Financial instrument categories

Dec. 31, 2023	Carrying amount per measurement category (IFRS 9)				Not allocated to any measurement category (out of scope of IFRS 7)	Total carrying amounts
	Financial assets		Financial liabilities			
EUR '000	at fair value through profit or loss	at amortized cost	at fair value through profit or loss	at amortized cost		
<b>Non-current assets</b>						
Financial assets	–	9,001	–	–	10	9,011
<b>Current assets</b>						
Receivables and other financial assets	–	36,770	–	–	20,246	57,016
Cash and cash equivalents and term deposits	–	20,132	–	–	–	20,132
<b>Non-current liabilities</b>						
Financial liabilities	–	–	1,679	11,430	1,349	14,458
<b>Current liabilities</b>						
Financial liabilities	–	–	282	3,355	1,654	5,291
Trade payables	–	–	–	18,825	–	18,825
Other liabilities	–	–	18	38	3,086	3,142
<b>Total</b>	–	65,903	1,979	33,648	26,345	127,875

## Financial instrument categories

Dec. 31, 2022	Carrying amount per measurement category (IFRS 9)				Not allocated to any measurement category (out of scope of IFRS 7)	Total carrying amounts
EUR '000	Financial assets		Financial liabilities			
	at fair value through profit or loss	at amortized cost	at fair value through profit or loss	at amortized cost		
<b>Non-current assets</b>						
Financial assets	–	9,000	–	–	19	9,019
<b>Current assets</b>						
Receivables and other financial assets	18,906	30,186	–	–	24,476	73,568
Cash and cash equivalents and term deposits	–	27,227	–	–	–	27,227
<b>Non-current liabilities</b>						
Financial liabilities	–	–	1,961	1,574	1,538	5,073
Other financial liabilities	–	–	–	–	–	–
<b>Current liabilities</b>						
Financial liabilities	–	–	300	4,331	1,170	5,801
Trade payables	–	–	–	18,295	–	18,295
Other liabilities	–	–	145	8	2,554	2,707
<b>Total</b>	<b>18,906</b>	<b>66,413</b>	<b>2,406</b>	<b>24,208</b>	<b>29,757</b>	<b>141,690</b>

The carrying amounts represent a reasonable approximation of fair value in all measurement categories. That is why carrying amounts and fair values are not presented separately.

The financial instruments measured at fair value at PVA TePla AG (with the exception of the purchase price components from acquisitions measured at fair value through profit or loss) are allocated to Level 2, in which the financial instruments are measured using quoted or market prices for similar instruments or using valuation techniques based on inputs observable on the market. The fair values of both forward exchange contracts and interest rate hedges were determined on the basis of discounted expected future cash flows. Applicable market interest rates were used for the remaining maturities of the financial instruments. Financial liabilities measured at fair value through profit or loss are primarily purchase price components from acquisitions. Fair value is calculated as the present value of the expected discounted cash flows on the basis of the projected future business development of the company concerned and is therefore based on unobservable market data (Level 3).

### Net gains or losses on financial instruments by measurement category

EUR '000	2023	2022
Financial assets and liabilities at fair value through profit or loss	124	- 1.132
Financial assets at amortized cost	702	- 529
Financial liabilities at amortized cost	- 76	- 84
<b>Total</b>	<b>750</b>	<b>- 1.745</b>

Net gains or losses on financial assets and liabilities at fair value through profit or loss are attributable to fair value changes of derivative hedging instruments and measurement effects for variable purchase price components for acquisitions (earn-out liabilities). As in the previous year, all changes in derivative hedging instruments were recognized in profit or loss in fiscal year 2023.

### Capital management

The primary objective of capital management at the PVA TePla Group is to safeguard the financial flexibility required to achieve its growth and return targets. Capital management focuses on the company's equity and on the debt needed to finance its operating activities. The PVA TePla Group manages its capital structure and makes adjustments to reflect changes in the economic environment. The equity ratio is the key capital management indicator. Specifically, this is managed by optimizing the return and limiting the amount of funds tied up. Other goals of capital management are to safeguard the Group's liquidity by agreeing appropriate, adequate credit lines and by maintaining the existing prepayment ratio as well as optimizing net finance costs to improve the return.

EUR '000	Dec. 31, 2023	Dec. 31, 2022
Shareholders' equity	127,417	104,096
<b>Total assets</b>	<b>305,360</b>	<b>290,331</b>
Equity ratio	41.7 %	35.9 %

Power purchase agreements with Stadtwerke Würzburg AG, Germany, do not fall within the scope of IFRS 9. As the requirements of the "own use exemption" within the meaning of IFRS 9.2.4 are met for these power purchase agreements, they cannot be classified as financial derivatives.

## 20. Lease disclosures

The PVA TePla Group acts as lessee of property, plant and equipment to a limited extent in the course of its business transactions. It acts as lessor only to an insignificant extent.



## Leases as lessee

The recognized right-of-use assets relate to the buildings leased by the PVA TePla Group as lessee as well as to individual items of operating and office equipment. The PVA TePla Group has leased premises for production and administration from third parties at standard contractual terms at the Munich, Jena, Westhausen, Coburg, Manassas/Virginia (USA), Corona/California (USA), Beijing (China) and Singapore sites. In addition, the PVA TePla Group leases a limited number of company vehicles, including various pool vehicles and company cars for Management Board members, managing directors and, in some cases, for employees with a high proportion of field work.

EUR '000	Land and buildings	Equipment, fixtures and fittings	Total
<b>Cost</b>			
Jan. 1, 2022	2,993	1,761	4,754
Exchange differences	37	10	47
Changes to the companies included in consolidation	-	-	-
Additions	660	933	1,593
Disposals	- 33	-	- 33
Transfers	-	-	-
Dec. 31, 2022	3,657	2,704	6,361
Jan. 1, 2023	3,657	2,704	6,361
Exchange differences	17	- 45	- 28
Changes to the companies included in consolidation	-	-	-
Additions	1,230	518	1,748
Disposals	- 57	- 78	- 135
Transfers	-	-	-
Dec. 31, 2023	4,847	3,099	7,945
<b>Accumulated amortization, depreciation and write-downs</b>			
Jan. 1, 2022	1,415	1,178	2,593
Exchange differences	-	-	-
Additions	650	468	1,118
Disposals	-	-	-
Transfers	-	-	-
Dec. 31, 2022	2,065	1,646	3,711
Jan. 1, 2023	2,065	1,646	3,711
Exchange differences	-	-	-
Additions	834	476	1,310
Disposals	-	-	-
Transfers	-	-	-
Dec. 31, 2023	2,900	2,122	5,021
<b>Net carrying amounts</b>			
Dec. 31, 2023	1,947	977	2,924
Dec. 31, 2022	1,592	1,058	2,650

Depreciation, amortization and impairment losses relating to the right-of-use assets recognized in the consolidated balance sheet position are reported in the function costs in the consolidated income statement.

For low-value leased assets and for short-term leases (less than twelve months), the company uses practical expedients and the payments are recognized as an expense on a straight-line basis in the consolidated income statement. Expenses for leases not recognized in the consolidated balance sheet position amounted to EUR 435 thousand in fiscal year 2023 (previous year: EUR 379 thousand), of which EUR 177 thousand (previous year: EUR 169 thousand) was attributable to short-term leases and EUR 258 thousand (previous year: EUR 210 thousand) to leases of low-value assets.

Total cash outflows for leases amounted to EUR 1,836 thousand in fiscal year 2023 (previous year: EUR 1,552 thousand), of which EUR 1,401 thousand (previous year: EUR 1,173 thousand) was attributable to payments of interest and principal for lease liabilities. The relevant interest expenses are reported in financial result costs in the income statement.

Individual real estate leases contain extension options after the end of the basic term (including automatic extensions of lease periods thereafter). Optional lease periods are included in the measurement of lease liabilities if it is reasonably certain that these options will be exercised.

#### **Leases as lessor**

The PVA TePla Group leases out its own equipment and systems to customers and parts of its own or leased office buildings only to an insignificant extent.

## **21. Contingent liabilities and other financial obligations**

The PVA TePla Group is occasionally involved in legal disputes in the course of its business activities. Management is not aware of any events that could materially impact net assets, financial position or results of operations. Appropriate provisions are recognized to take account of any risks arising from legal disputes.

As of December 31, 2023, as in the previous year 2022, there are no significant other financial obligations with regard to purchase commitments for property, plant and equipment or with regard to leases entered into but not yet commenced.

## **22. Related party disclosures**

Related parties as defined by IAS 24 are legal or natural persons that, as a minimum, can exert significant influence on PVA TePla AG or are controlled, jointly controlled or significantly influenced by PVA TePla AG. Related parties additionally include key management personnel, their close family members and companies controlled, jointly controlled or significantly influenced by this group of persons.

With regard to the PVA TePla Group, related party transactions concern business transactions with the companies included in the consolidated financial statements. For an explanation of the volume of these transactions, please refer to the presentation of revenue in the segment reporting in note 18, which also includes intragroup revenue. All intragroup transactions are conducted at arm's length conditions and are eliminated in full when preparing the consolidated financial statements. In this respect, they do not impact the net assets, financial position or results of operations of the PVA TePla Group.

## Members of the Management Board

- Jalin Ketter, Giessen (CEO)  
(from July 1, 2023 to December 31, 2023 also Spokeswoman of the Management Board, from January 1, 2024, CEO)
- Oliver Höfer, Jena (COO)
- Manfred Bender, Heuchelheim (CEO) (until June 30, 2023)
- Dr. Andreas Mühe, Wetzlar (CTO) (until June 30, 2023)

## Total remuneration of the members of the executive board

EUR '000	2023	2022
Short-term benefits	1,306	1,825
Share-based payments	252	–
Post-employment benefits	–	–
Termination benefits	851	–
Other long-term benefits	412	315
<b>Total</b>	<b>2,821</b>	<b>2,140</b>

Termination benefits paid in fiscal year 2023 to Management Board members amounted to EUR 851 thousand (previous year: EUR 0 thousand), of which EUR 755 thousand (previous year: EUR 0 thousand) related to severance payments and EUR 96 thousand (previous year: EUR 0 thousand) to compensation payments.

Four members of the Management Board were granted long-term bonus components in the period 2020 to 2023 in accordance with the Management Board employment contract. These awards resulted in payments of EUR 750 thousand in fiscal year 2023.

In 2023, two members of the Management Board were granted a long-term bonus component (Long-Term Incentive) in line with the Management Board employment contract. This bonus component is determined on the basis of changes in PVA TePla AG's market capitalization between the date of the Annual General Meeting 2023 and the date of the Annual General Meeting 2026. This is a long-term remuneration component that qualifies as a cash-settled share-based payment as defined by IFRS 2. The bonus granted to both of the members of the Management Board amounts to 0.5 percent and 0.3 percent of the increase in market capitalization, respectively, after adjustment for capital increases that have taken place in the meantime. Calculated using the Black-Scholes option pricing model, the fair value of these long-term bonus components amounted to EUR 206 thousand and EUR 46 thousand, respectively, for the two members of the Management Board as of December 31, 2023. Hence, a liability of EUR 252 thousand was recognized as of December 31, 2023 under "Other provisions". The Black-Scholes option pricing model was based on the inputs presented below. The expected volatility was derived from historical peer group volatility (median).

	Dec. 31, 2023	Dec. 31, 2022	June 26, 2020
Dividend yield (%)	0.2	0.0	0.0
Expected volatility (%)	38.6 or 48.5	45.1	38.7
Risk-free interest rate (%)	2.2 or 3.1	2.3	– 0.7
Residual term at measurement date (years)	0.5 or 3	0.5	1.5
Market capitalization (6-month average) (EUR million)	389	393	780

Long-term benefits relate to the long-term performance-related component. All other payments are short-term. No employer contributions to pension insurance are paid. There are no pension commitments for any current members of the Management Board. No real stock options were granted to members of the Management Board in either fiscal year 2023 or in the previous year. There were no unusual transactions with key management personnel, their close family members or companies controlled, jointly controlled or significantly influenced by this group of persons.

Pension payments of EUR 137 thousand (previous year: EUR 136 thousand) were made to former members of the management body in fiscal year 2023. There is a provision of EUR 1,629 thousand (previous year: EUR 1,622 thousand) for such pension obligations as of the December 31, 2023 reporting date.

Detailed information on the remuneration system and the remuneration components can be found in the PVA TePla Group's separate remuneration report.

### Members of the Supervisory Board

- Alexander von Witzleben, Erlenbach ZH, Switzerland (Chairman, Deputy Chairman of the Audit Committee)  
Arbonia AG, Arbon, Switzerland (Chairman of the Board of Directors)

Other memberships in supervisory bodies:

VERBIO SE, Leipzig, Germany (Chairman of the Supervisory Board)  
KAEFER SE & Co KG, Bremen, Germany (Member of the Advisory Board)  
Siegwerk Druckfarben AG & Co. KGaA, Siegburg, Germany (Member of the Supervisory Board)  
Feintool International Holding AG, Lyss, Switzerland (President of the Administration Board)  
Artemis Holding AG, Hergiswil, Switzerland (Member of the Advisory Board)  
Innoviz Technologies Ltd., Nitzba, Israel (Member of the Advisory Board)

- Prof. Dr. Gernot Hebestreit, Leverkusen, Germany (Deputy Chairman, Chairman of the Audit Committee)  
Grant Thornton AG Wirtschaftsprüfungsgesellschaft, Düsseldorf, Germany (Partner, Member of the Management Board) (until September 30, 2023)

Other memberships in supervisory bodies:

Comvis AG, Essen, Germany (Deputy Chairman of the Supervisory Board)

- Dr. Myriam Jahn, Düsseldorf, Germany (Member of the Audit Committee)  
Possehl Digital GmbH, Lübeck, Germany (CEO) (until December 31, 2023)

Other memberships in supervisory bodies:

SÜSS MicroTec AG, Munich, Germany (Deputy Chair of the Supervisory Board)  
AUMA Riester GmbH & Co. KG, Müllheim, Germany (Advisory Board)

- Prof Dr. Markus H. Thoma, Schöffengrund, Germany,  
Professor of Physics of Plasmas and Astronautics, University of Giessen, Germany

Other memberships in supervisory bodies:

Nationales Zentrum für Plasmamedizin e.V. (National Center for Plasma Medicine)  
(Member of the Board of Trustees)

### Total remuneration of Supervisory Board members

EUR '000	2023	2022
Fixed compensation	168	155
Variable compensation	–	–
<b>Total</b>	<b>168</b>	<b>155</b>

Supervisory Board remuneration does not contain any performance-related components.

Detailed information on the remuneration system and the remuneration components can be found in the PVA TePla Group's remuneration report.

### 23. Auditor's fees and services

EUR '000	2023	2022
Audit of annual financial statements	498	234
Other assurance or valuation services	72	42
Tax consulting services	–	–
Other services	–	–
<b>Total</b>	<b>570</b>	<b>276</b>

The fee for auditing services provided by BDO AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, Germany (previous year: BDO AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, Germany) primarily related to the audit of the consolidated financial statements and the annual financial statements of PVA TePla AG as well as various audits of the annual financial statements of its subsidiaries, including areas of emphasis agreed with the Supervisory Board. An amount of EUR 205 thousand of the fees reported for fiscal year 2023 (previous year: EUR 0 thousand) relate to the previous year. The other assurance services relate to the certification of compliance with covenants and the formal audit of the remuneration report.

### 24. Declaration of conformity in accordance with section 161 of the German Stock Corporation Act (AktG)

The Management and Supervisory Boards of PVA TePla AG issued the declaration of conformity with the recommendations of the German Corporate Governance Code in accordance with section 161 of the AktG and made it available to the shareholders.

The full declaration is permanently available on the company's website at (<https://www.pvatepla.com/investor-relations/corporate-governance/>). Declarations of conformity published in previous fiscal years are also available there.

## 25. Significant events after the reporting date

No reportable events occurred after the reporting date that could have had a material impact on the net assets, financial position and results of operations of the PVA TePla Group.

Wettenberg, Germany, March 12, 2024

PVA TePla AG



Jalin Ketter  
CEO



Oliver Höfer  
COO



## Responsibility statement by the legal representative

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To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the combined management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Wettenberg, March 12, 2024

PVA TePla AG



Jalin Ketter  
CEO



Oliver Höfer  
COO



# Opinion of the independent auditor

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To PVA TePla AG, Wettenberg

Report on the audit of the consolidated financial statements and the combined management report

## Audit judgments

We have audited the consolidated financial statements of PVA TePla AG, Wettenberg, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at December 31, 2023, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated cash flow statement for the financial year from January 1, 2023 to December 31, 2023, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In addition, we have audited the combined management report (management report for the Company and the Group) of PVA TePla AG for the financial year from January 1, 2023 to December 31, 2023. In accordance with the German legal requirements, we have not audited the content of the components of the combined management report listed under "OTHER INFORMATION".

In our opinion, based on the findings of our 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 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, 2023 and of its financial performance for the financial year from January 1, 2023 to December 31, 2023, and
- the accompanying combined management report as a whole provides a suitable 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 the components of the combined management report listed under "OTHER INFORMATION".

Pursuant to § 322 Abs. 3 Satz 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 audit opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with § 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 companies 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) (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 audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit 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, 2023 to December 31, 2023. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We have determined the following matters to be the key audit matters to be communicated in our auditor's report:

1. Revenue recognition over time in accordance with IFRS 15
2. Valuation of work in progress
3. Recoverability of goodwill

### 1. Recognition of revenue over time in accordance with IFRS 15

#### Facts of the case

In the consolidated financial statements of PVA TePla AG, Wettenberg, sales revenues of EUR 263.4 million are reported in the consolidated income statement. Of this amount, EUR 163.5 million is recognized at a point in time and EUR 99.9 million over time.

The individual contractual assessment of whether the requirements of IFRS 15.35c) for revenue recognition over time are met, the determination of whether a product or service is to be accounted for as a separate performance obligation and the allocation of the purchase price to the performance obligations can require complex assessments by the accounting entity. Furthermore, the determination of the expected contract costs as part of the application of the cost-to-cost method involves the exercise of judgment by the Management Board.

Due to the complexity of the necessary assessments and discretionary judgments, this is a key audit matter.

The company's disclosures on revenue recognition in accordance with IFRS 15 are contained in sections D. "Management judgments and estimation uncertainties" and E.1. "Revenue" and F.12. "Receivables and other financial assets and contract assets" of the notes to the consolidated financial statements.

#### Auditor reaction

As part of our audit, we first obtained an understanding of the processes, procedures and internal control system with regard to the proper accounting of revenue by means of a structural audit. In doing so, we assessed the fundamental accounting methods and the calculation system used in the context of revenue recognition over time in accordance with the input-based cost-to-cost method. Furthermore, we evaluated the client's assessment of the legal situation in individual countries and examined on a representative sample basis on an individual contract basis whether there is a legal right to payment for services already rendered in accordance with IFRS 15.37.

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With regard to the audit of estimates of the expected and actual production costs incurred to determine the percentage of completion using the cost-to-cost method, we conducted interviews with project managers and controlling staff as well as substantive audit procedures for a representative sample of the orders on hand as of the reporting date. Specifically, we audited the production costs incurred for this sample by reconciling the material costs and labor hours recorded in the financial year with supporting documentation.

## 2. Valuation of work in progress

### Facts of the case

In the consolidated financial statements of PVA TePla AG, Wettenberg, assets amounting to EUR 57.1 million before impairment are reported under the balance sheet item "Inventories" within "Work in progress".

Work in progress is measured at production cost, taking into account production and material overheads as well as depreciation. The valuation of inventories is subject to the discretionary decisions of the legal representatives with regard to the determination of the expected contract costs and the calculation of value adjustments to the lower net realizable value as at the reporting date. Due to the exercise of judgment and the materiality of work in progress, this is a key audit matter.

The company's disclosures on inventory valuation are contained in sections D. "Management judgment and estimation uncertainties" and F.11. "Inventories" of the notes to the consolidated financial statements.

### Auditor reaction

As part of our audit, we first examined the valuation procedure and valuation methods and assessed their appropriateness. In a next step, we assessed the ongoing correct transfer of the measured working hours and direct material costs from the upstream systems and the admissibility of their capitalization as production costs. We then tested the hourly production rates and material overhead rates used in the valuation and their calculation with the applicable costs. We examined the cost components included in the calculation of the hourly production rates and material overhead surcharges to ensure that they were correctly derived from the accounting system.

Furthermore, our audit procedures focused on the correct valuation of work in progress at the lower of cost and net realizable value. To this end, we tested the expected sales proceeds against any contractually agreed consideration or the consideration for comparable asset types using representative samples. With regard to the expected contract costs, we evaluated controlling and risk reports as well as the minutes of Executive Board and Supervisory Board meetings and discussed selected matters and estimates with controlling employees and the legal representatives. The forecast quality of the expected cost of sales was additionally assessed on the basis of completed orders by comparing the expected cost of sales with the actual cost of sales incurred on a sample basis.

### 3. Recoverability of goodwill

#### Facts of the case

In the consolidated financial statements of PVA TePla AG, goodwill of EUR 13.7 million is reported under the balance sheet item "Intangible assets", which accounts for 5 % of the consolidated balance sheet total. The goodwill was allocated to cash-generating units.

Cash-generating units with goodwill are subjected to an impairment test by the company at least once a year and additionally if there are indications of impairment. The valuation is carried out using a valuation model based on the discounted cash flow method. If the carrying amount of a cash-generating unit is higher than the recoverable amount, an impairment loss is recognized in the amount of the difference.

The assessment of the recoverability of goodwill is complex and requires numerous estimates and discretionary decisions by the legal representatives, particularly with regard to the amount of future cash surpluses, the growth rate for the forecast of cash flows beyond the detailed planning period and the discount rate to be used. Due to the significant uncertainties associated with the measurement of goodwill, this is a key audit matter.

PVA TePla AG's disclosures on goodwill are contained in sections D. "Management judgment and estimation uncertainties" and F.8. "Intangible assets" of the notes to the consolidated financial statements

#### Auditor reaction

As part of our audit, we assessed the appropriateness of the valuation method applied and the significant valuation assumptions used to derive the recoverable amounts as well as the consistent application of the valuation method with the involvement of our valuation specialists.

To this end, we first gained an understanding of the planning system and the planning process and assessed its appropriateness. We reconciled the forecast of future cash surpluses for the financial years 2024 to 2026 with the corporate planning prepared by the executive directors and approved by the Supervisory Board. We discussed the key assumptions used in the planning with the executive directors and other persons responsible for planning at the material operating companies. On the basis of an analysis of deviations between planned and actual figures in the past and in the current financial year, we satisfied ourselves of the company's adherence to planning. Furthermore, we verified the key assumptions underlying the planning, in particular the growth rates assumed in the forecast for the perpetual annuity, by comparing them with past developments and taking into account current industry-specific market expectations and the company-specific situation.

In addition, we critically scrutinized the discount rates used on the basis of the weighted cost of capital and reviewed the individual parameters determined by PVA (in particular the base interest rate, market risk premium and beta factor). We verified the peer group analysis performed by PVA TePla AG in this context through our own analysis of the capital market data and checked its plausibility.

Our audit also included the sensitivity analyses performed by PVA TePla AG. With regard to the effects of possible changes in the cost of capital and the assumed growth rates, we also performed our own sensitivity analyses.

## Other information

The legal representatives or the Supervisory Board are responsible for the other information. The other information includes

- the non-audited parts of the combined management report listed in the appendix to the auditor’s report and
- the remaining parts of the annual report, with the exception of the audited consolidated financial statements and combined management report and our auditor’s report

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 of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information

- are materially inconsistent with the consolidated financial statements, with the combined management report or our knowledge obtained in the audit, or
- otherwise appear 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 context.

## Responsibility of the legal representatives 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. accounting fraud or error) or error.

In preparing the consolidated financial statements, the legal representatives are responsible for assessing the Group’s ability to continue as a going concern. Furthermore, they are responsible 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 combined 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 combined 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 combined management report.

The Supervisory Board is responsible for overseeing the Group’s financial reporting process for the preparation of the consolidated financial statements and the combined 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 combined 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 combined 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) 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 combined management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. In addition

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the combined 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 combined 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 the executive directors and the reasonableness of accounting estimates and related disclosures made by the executive directors.
- 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 combined management report or, if such disclosures are inadequate, to modify our respective opinions. We draw our conclusions on the basis of 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 combined management report.

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We are responsible for the direction, supervision and performance of the audit of the consolidated financial statements. We are solely responsible for our audit opinions.

- Evaluate the consistency of the combined 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 the legal representatives in the combined 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 forward-looking statements or on the underlying assumptions. There is a significant unavoidable risk that future events will differ materially from the forward-looking statements.

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 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 address 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 statutory and other legal requirements**

### **Report on the audit of the electronic reproduction of the consolidated financial statements and the combined management report prepared for publication purposes in accordance with section 317 (3a) of the German Commercial Code. 3A HGB**

#### **Audit opinion**

We have performed assurance work in accordance with § 317 Abs. 3a HGB to obtain reasonable assurance about whether the reproduction of the consolidated financial statements and the combined management report contained in the file „PVA-2023-12-31-en.zip“ and prepared for publication purposes (hereinafter also referred to as “ESEF documents”) complies in all material respects with the requirements of § 328 Abs. 1 HGB for the electronic reporting format (“ESEF format”). In accordance with German legal requirements, this assurance engagement only extends to the conversion of the information contained in the consolidated financial statements and the combined management report into the ESEF format and therefore does not extend to the information contained in these reproductions nor to any other information contained in the aforementioned file.

In our opinion, the reproductions of the consolidated financial statements and the combined management report contained in the above-mentioned file and prepared for publication purposes comply, in all material respects, with the requirements of Section 328 (1) HGB for the electronic reporting format. Beyond this audit opinion and our audit opinions on the accompanying consolidated financial statements and on the accompanying combined management report for the financial year from January 1, 2023 to December 31, 2023 contained in the "REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE COMBINED MANAGEMENT REPORT" above, we do not express any audit opinion on the information contained in these reproductions or on the other information contained in the above-mentioned file.

### **Basis for the audit opinion**

We conducted our audit of the reproduction of the consolidated financial statements and of the combined management report contained in the above-mentioned file in accordance with Section 317 (3a) HGB and IDW Auditing Standard: Audit of the Electronic Reproduction of Financial Statements and Management Reports Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB (IDW PS 410 (06.2022)). Our responsibilities under those requirements are further described in the „Auditor’s responsibilities for the audit of the ESEF documents“ section. Our audit practice has applied the requirements of the IDW Quality Management Standards, which implement the International Standards on Quality Management of the IAASB.

### **Responsibility of the legal representatives and the Supervisory Board for the ESEF documents**

The executive directors of the company are responsible for the preparation of the ESEF documents including the electronic reproduction of the consolidated financial statements and the combined management report in accordance with Section 328 (1) sentence 4 no. 1 HGB and for the tagging of the consolidated financial statements in accordance with Section 328 (1) sentence 4 no. 2 HGB.

Furthermore, the company’s management is responsible for such internal control as they have determined necessary to enable the preparation of ESEF documents that are free from material non-compliance, whether due to fraud or error, 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.



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## Auditor's responsibility for the audit of the ESEF documents

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. During the audit, we exercise professional judgment and maintain professional skepticism. In addition

- Identify and assess the risks of material non-compliance with the requirements of Section 328 (1) HGB, 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 opinion.
- Obtain an understanding of internal control relevant to the audit of the ESEF documentation 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 controls.
- we assess the technical validity of the ESEF documents, i.e. whether the file containing the ESEF documents meets the requirements of Delegated Regulation (EU) 2019/815 in the version applicable at the reporting date for the technical specification for this file.
- Evaluate whether the ESEF documents enable an XHTML reproduction with content equivalent to the audited consolidated financial statements and the audited combined management report.
- we assess whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with Articles 4 and 6 of the Delegated Regulation (EU) 2019/815 in the version applicable at the reporting date provides an adequate and complete machine-readable XBRL copy of the XHTML reproduction.

## Other information in accordance with article 10 EU-APrVO

We were elected as auditor by the annual general meeting on June 28, 2023. We were engaged by the chairman of the audit committee on July 17, 2023. We have been the auditor of PVA TePla AG without interruption since the financial year 2022.

We declare that the audit 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 (audit report).

## Other matters – use of the audit opinion

Our audit opinion should always be read in conjunction with the audited consolidated financial statements and the audited combined management report as well as the audited ESEF documents. The consolidated financial statements and the combined management report converted into the ESEF format – including the versions to be filed in the company register – are merely electronic reproductions of the audited consolidated financial statements and the audited combined management report and do not replace them. In particular, the ESEF report and our audit opinion contained therein can only be used in conjunction with the audited ESEF documents provided in electronic form.

## Responsible auditor

The German Public Auditor responsible for the engagement is Alexander Gebhardt.

## Appendix to the auditor's report: components of the combined management report not audited for content

We have not audited the content of the following components of the combined management report:

- the combined non-financial statement contained in the combined management report, which is included in the chapters of the combined management report and to the extent that they are marked in tabular form in the section „About this report“ as not being part of the management report and as unaudited, as well as the chapter „EU Taxonomy“
- the (Group) declaration on corporate governance contained in the section „Declaration on corporate governance and corporate governance report“ of the combined management report
- the information contained in the combined management report that is not part of the management report and is marked as unaudited. These include the section „Principles and objectives of the internal control system (ICS) and risk management system (RMS)“

Frankfurt a. M., March 12, 2024

BDO AG  
Auditing company

signed Weiler  
Certified Public Accountant

signed Gebhardt  
Certified Public Accountant

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## Independent auditor's report on a limited assurance engagement on the consolidated non-financial statement

### To PVA TePla AG, Wetttemberg

We have performed a limited assurance engagement on the combined non-financial group statement of PVA TePla AG, Wetttemberg (hereinafter: PVA TePla or the Company), for the period from January 1 to December 31, 2023 (hereinafter the "non-financial group statement") included in the combined management report according to the table "Contents of the combined non-financial group statement" in the section "About this report".

The external sources of documentation or expert opinions referred to in the non-financial group statement are not subject to our audit.

### Responsibility of the legal representatives

The executive directors of the company are responsible for the preparation of the non-financial group statement in accordance with §§ 315c in conjunction with 289c to 289e HGB and Article 8 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 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") and the delegated acts adopted in this regard, as well as with their own interpretation of the wording and terms contained in the EU Taxonomy Regulation and the delegated acts adopted in this regard, as presented in the "EU Taxonomy" section of the non-financial group statement.

This responsibility of the legal representatives of the company includes the selection and application of appropriate methods for non-financial reporting as well as making assumptions and estimates for individual non-financial disclosures of the Group that are reasonable in the circumstances. Furthermore, the legal representatives are responsible for the internal controls they have deemed necessary to enable the preparation of a non-financial Group statement that is free from material misstatement, whether due to fraud (manipulation of the non-financial statement) or error.

The EU Taxonomy Regulation and the related delegated acts contain formulations and terms that are still subject to considerable interpretation uncertainty and for which clarifications have not yet been published in every case. The legal representatives have therefore set out their interpretation of the EU Taxonomy Regulation and the delegated acts adopted in this regard in the "EU Taxonomy" section of the non-financial Group statement. They are responsible for the reasonableness of this interpretation. Due to the inherent risk that undefined legal terms can be interpreted differently, the legal conformity of the interpretation is subject to uncertainty.

## Independence and quality management of the auditing company

We have complied with the German professional regulations on independence and other requirements of professional conduct.

Our auditing firm applies the national statutory regulations and professional pronouncements – in particular the Professional Code of Conduct for German Public Auditors and Chartered Accountants (BS WP/vBP) and the IDW Quality Management Standards issued by the Institute of Public Auditors in Germany (IDW) – and accordingly maintains a comprehensive quality management system that includes documented regulations and measures relating to compliance with professional conduct requirements, professional standards and relevant statutory and other legal requirements.

## Responsibility of the auditor

Our responsibility is to express a limited assurance conclusion on the consolidated non-financial statement based on our audit.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): “Assurance Engagements other than Audits or Reviews of Historical Financial Information”, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether any matters have come to our attention that cause us to believe that the non-financial group statement of the Company, other than the external documentation sources or expert opinions referred to in the non-financial group statement, is not prepared, in all material respects, in accordance with § 315c in conjunction with § 289c to 289e of the German Commercial Code (HGB). 289c to 289e HGB of the EU Taxonomy Regulation and the related delegated acts as well as the interpretation by the legal representatives presented in section EU Taxonomy of the non-financial group statement.

In a limited assurance engagement, the audit procedures performed are less extensive than in a reasonable assurance engagement and therefore considerably less assurance is obtained. The selection of audit procedures is at the auditor’s discretion.

As part of our audit, we performed, among others, the following audit procedures and other activities:

- Gaining an understanding of the structure of the Group’s sustainability organization and the involvement of stakeholders
- Interviews with employees responsible for the materiality analysis at Group level to gain an understanding of PVA Tepla’s approach to identifying material topics and corresponding reporting boundaries
- A risk assessment, including a media analysis, of relevant information on PVA Tepla’s sustainability performance in the reporting period
- Assessment of the suitability of the internally developed definitions
- Assessment of the design and implementation of systems and processes for the collection, processing and monitoring of data on environmental, labor and social matters, respect for human rights, anti-corruption and anti-bribery, including the consolidation of data
- Inquiries of personnel at group level and the legal representatives who are responsible for the determination of disclosures on concepts, due diligence processes, results and risks, as well as for the implementation of internal control procedures and the consolidation of disclosures
- Inspection of selected internal and external documents
- Analytical assessment of the data and trends of the quantitative data reported for consolidation at Group level by all locations

- Reconciliation of selected disclosures with the corresponding data in the consolidated financial statements and the other components of the Group management report
- Evaluation of the process for identifying taxonomy-eligible economic activities and the corresponding disclosures in the non-financial group statement
- Assessment of the overall presentation of the information

In determining the disclosures pursuant to Article 8 of the EU Taxonomy Regulation, the executive directors are required to interpret undefined legal terms. Due to the inherent risk that undefined legal terms can be interpreted differently, the legal conformity of the interpretation and, accordingly, our audit in this regard is subject to uncertainty.

## Audit opinion

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the consolidated non-financial statement of PVA Tepla for the period from January 1 to December 31, 2023 has not been prepared, in all material respects, in accordance with Sections 315c in conjunction with 289c to 289e HGB and the EU Taxonomy Regulation and the related delegated acts as well as the interpretation by the executive directors as set out in the EU Taxonomy section of the consolidated non-financial statement.

We do not express an opinion on the external documentation sources or expert opinions referred to in the Group non-financial statement.

## Restriction on the use of the endorsement

We draw attention to the fact that the audit was conducted for the purposes of the company and that the report is only intended to inform the company about the results of the audit. Consequently, it is not suitable for any purpose other than the aforementioned. Thus, the report is not intended to be used by third parties to make (asset) decisions. Our responsibility is solely to the company. We do not accept any responsibility towards third parties. Our audit opinion is not modified in this respect.

## Reference to order conditions

This engagement is based on the “Special Engagement Terms of BDO AG Wirtschaftsprüfungsgesellschaft” dated March 1, 2021 agreed with the company and the “General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften” issued by the IDW dated January 1, 2017 ([www.bdo.de/auftragsbedingungen](http://www.bdo.de/auftragsbedingungen)).

Frankfurt a. M., March 12, 2024

BDO AG  
Auditing company

signed Gebhardt  
Certified Public Accountant

signed Möller  
Partner Sustainability Services

## GRI content index

PVA TePla AG has reported the information detailed in this GRI content index for the period from January 1 to December 31, 2023, with reference to the GRI Standards.

GRI 1: Foundation 2021		
GRI 2 – General Disclosures 2021		
GRI Standard	Disclosure	Reference
GRI 2-01	Organizational details	<ul style="list-style-type: none"> <li>– Fundamentals of the Group</li> <li>– Business activities and strategy</li> <li>– Organizational structure</li> <li>– Major locations and scope of consolidation</li> <li>– Management system</li> </ul>
GRI 2-02	Entities included in the organization's sustainability reporting	<ul style="list-style-type: none"> <li>– Fundamentals of the Group</li> <li>– Organizational structure</li> <li>– Major locations and scope of consolidation</li> </ul>
GRI 2-03	Reporting period, frequency and contact point	<ul style="list-style-type: none"> <li>– Fundamentals of the Group</li> </ul>
GRI 2-04	Restatements of information	<ul style="list-style-type: none"> <li>– Research and development</li> <li>– Energy consumption and greenhouse gas emissions</li> </ul>
GRI 2-06	Activities, value chain and other business relationships	<ul style="list-style-type: none"> <li>– Business activities and strategy</li> <li>– Organizational structure</li> <li>– Major locations and scope of consolidation</li> <li>– Research and development</li> <li>– Respect for human rights</li> </ul>
GRI 2-07	Employees	<ul style="list-style-type: none"> <li>– Responsibility for our team</li> </ul>
GRI 2-08	Workers who are not employees	<ul style="list-style-type: none"> <li>– Respect for human rights</li> </ul>
GRI 2-09	Governance structure and composition	<ul style="list-style-type: none"> <li>– Management Board</li> <li>– Governance structure</li> <li>– Working methods of the Management Board and Supervisory Board as well as the composition and working methods of their committees</li> <li>– Diversity</li> </ul>
GRI 2-10	Nomination and selection of the highest governance body	<ul style="list-style-type: none"> <li>– Working methods of the Management Board and Supervisory Board as well as the composition and working methods of their committees</li> </ul>
GRI 2-11	Chair of the highest governance body	<ul style="list-style-type: none"> <li>– Supervisory Board</li> <li>– Working methods of the Management Board and Supervisory Board as well as the composition and working methods of their committees</li> </ul>
GRI 2-12	Role of the highest governance body in overseeing the management of impacts	<ul style="list-style-type: none"> <li>– Report of the Supervisory Board</li> <li>– Sustainability</li> </ul>
GRI 2-13	Delegation of responsibility for managing impacts	<ul style="list-style-type: none"> <li>– Sustainability</li> </ul>
GRI 2-14	Role of the highest governance body in sustainability reporting	<ul style="list-style-type: none"> <li>– Report of the Supervisory Board</li> <li>– Sustainability</li> </ul>
GRI 2-15	Conflicts of interest	<ul style="list-style-type: none"> <li>– Working methods of the Management Board and Supervisory Board as well as the composition and working methods of their committees</li> <li>– Declaration of conformity with the recommendations of the German Corporate Governance Code</li> </ul>
GRI 2-16	Communication of critical concerns	<ul style="list-style-type: none"> <li>– Good corporate governance und compliance</li> <li>– Whistleblowing</li> </ul>

GRI 2-17	Collective knowledge of the highest governance body	–
GRI 2-18	Evaluation of the performance of the highest governance body	–
GRI 2-22	Statement on sustainable development strategy	– Business activities and strategy – Sustainability – Materiality and stakeholder engagement – Disclosures on corporate governance practices
GRI 2-23	Policy commitments	– Business activities and strategy – Sustainability – Disclosures on corporate governance practices
GRI 2-25	Processes to remediate negative impacts	– Good corporate governance and compliance – Whistleblowing
GRI 2-26	Mechanisms for seeking advice and raising concerns	– Good corporate governance and compliance – Whistleblowing
GRI 2-27	Compliance with laws and regulations	– Responsible corporate governance – Sustainability in the supply chain – Respect for human rights – Disclosures on corporate governance practices
GRI 2-29	Approach to stakeholder engagement	– Materiality and stakeholder engagement – Respect for human rights – Other corporate governance disclosures
<b>GRI 3 – Material Topics 2021</b>		
GRI 3-01	Guidance to determine material topics	– Materiality and stakeholder engagement
GRI 3-02	List of material topics	– Contents of the combined nonfinancial statement – Materiality and stakeholder engagement
<b>GRI 200 – Economy</b>		
GRI 205	Anti-corruption 2016	– Good corporate governance and compliance – Whistleblowing
GRI 205-2	Communication and training about anti-corruption policies and procedures	– Good Corporate Governance und Compliance – Whistleblowing
<b>GRI 300 – Environment</b>		
GRI 302	Energy 2016	– Energy consumption and greenhouse gas emissions
GRI 302-1	Energy consumption within the organization	– Energy consumption and greenhouse gas emissions
GRI 302-4	Reduction of energy consumption	– Energy consumption and greenhouse gas emissions
GRI 305	Emissions 2016	– Energy consumption and greenhouse gas emissions
GRI 305-1	Direct (Scope 1) GHG emissions	– Energy consumption and greenhouse gas emissions
GRI 305-2	Energy indirect (Scope 2) GHG emissions	– Energy consumption and greenhouse gas emissions
GRI 305-5	Reduction of GHG emissions	– Energy consumption and greenhouse gas emissions
GRI 306	Effluents and Waste 2016	– Waste
GRI 306-2	Waste by type and disposal method	– Waste

GRI 400 – Social		
GRI 401	Employment 2016	– Responsibility for our team – Employee satisfaction
GRI 401-1	New employee hires and employee turnover	– Responsibility for our team – Employee satisfaction
GRI 401-2	Benefits	– Responsibility for our team – Employee satisfaction
GRI 403	Occupational Health and Safety 2018	– Occupational health and safety
GRI 403-1	Occupational health and safety management system	– Occupational health and safety
GRI 403-2	Hazard identification, risk assessment, and incident investigation	– Occupational health and safety
GRI-403-3	Occupational health services	– Occupational health and safety
GRI-403-5	Worker training on occupational health and safety	– Occupational health and safety
GRI-403-6	Promotion of worker health	– Occupational health and safety
GRI 403-9	Work-related injuries	– Occupational health and safety
GRI 404	Training and Education 2016	– Aus- und Weiterbildung
GRI 404-2	Programs for upgrading employee skills and transition assistance programs	– Training and education
GRI 405	Diversity and Equal Opportunity 2016	– Responsibility for our team
GRI 405-1	Diversity of governance bodies and employees	– Responsibility for our team



## Financial calendar

May 15, 2024	Interim Report Q1
May 16, 2024	Capital Markets Day
June 26, 2024	Shareholders' Meeting
August 14, 2024	Half year report
November 12, 2024	Interim Report Q3

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