Thin-Film Coating and Surface Treatment

ANNUAL REPORT 2023

SINGULUS TECHNOLOGIES

Thin-Film Coating and Surface Treatment

SINGULUS TECHNOLOGIES develops and assembles innovative machines and systems for efficient thin-film coating and surface treatment processes, which are used worldwide i the Photovoltaics, Semiconductor, Medical Technology, Packaging, Glass & Automotive as well as Battery & Hydrogen markets.

The company's core competencies include various processes of coating technology (PVD sputtering, PECVD, evaporation), surface treatment as well as wet-chemical and thermal production processes.

SINGULUS TECHNOLOGIES sees sustainability as an opportunity to position itself with innovative products. In the focus are environmental awareness, efficient use of resources and avoidance of unnecessary CO_2 pollution.

SINGULUS TECHNOLOGIES attaches great importance to responsible and sustainable corporate governance.

ANNUAL REPORT 2023

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REPORT OF THE SUPERVISORY BOARD

To the shareholders of the SINGULUS TECHNOLOGIES AG

Dear Shareholders,

In this report, we inform you about the main activities of the Supervisory Board in the fiscal year 2023.

SINGULUS TECHNOLOGIES focuses on the development and assembly of innovative machines and systems for efficient production processes in the areas of thin-film technology and surface treatment. Our production systems with innovative processes are used worldwide in various markets such as Photovoltaics, Semiconductors, Medical Technology, Packaging, Display, Automotive as well as in state-of-the-art Battery Technologies and in the future topic of Hydrogen as an energy carrier. Our company’s main goal is to provide our customers with custom-tailored solutions, precisely meeting the specific requirements of our customers. To achieve this, we work closely with them to understand their needs and develop innovative technologies that optimize production processes and increase competitiveness.

Business development in the 2023 financial year was hampered by supply chain problems, labor shortages and energy price increases. In addition, the conflicts in Ukraine and the Middle East unsettled the global economy. The stagnating economy in China and, in particular, the existing overcapacity for the production of solar panels in China slowed down sales of our solar production systems in our most important sales markets in Europe and China.

Key financial indicators such as sales, earnings and therefore equity or freely available liquid funds are affected by this difficult situation. Due to the currently still negative shareholders’ equity it is required that SINGULUS TECHNOLOGIES currently has a positive going-concern assumption and is able to document this accordingly. For this matter, please refer to the detailed comments in the Status Report. One of the focal points of the Supervisory Board's activities in the business year 2023 was monitoring the positive going concern forecast. The Supervisory Board repeatedly discussed this issue with the auditors, which was the main reason for the delay in the approval of the financial statements for the business years 2020, 2021 and 2022. The Board was regularly informed by the Executive Board, obtained advice from experts and accompanied the reorganization of the financing. For details regarding the course of business and the financing situation, please refer to the Status Report.

SUPERVISORY BOARD MATTERS

During the business year 2023 the Supervisory Board of the SINGULUS TECHNOLOGIES AG continued to be comprised of three members. The terms of office of Dr. Wolfhard Leichnitz and Dr. Rolf Blessing ended at the close of the Annual General Meeting on July 19, 2023. Dr. Leichnitz stood for re-election and the Annual General Meeting confirmed the election with a broad majority. Dr. Blessing has stated that he wishes to leave the Supervisory Board at the end of his term of office for reasons of age. Dr. Changfeng Tu stood as a new candidate for the Supervisory Board and was also confirmed by a large majority at the Annual General Meeting on July 19, 2023. During the course of its constituent meeting after the Annual General Meeting, the Supervisory Board elected Dr. Leichnitz as Chairman.

At the proposal of the Supervisory Board and Executive Board, the Annual General Meeting on December 14, 2023 resolved to expand the Supervisory Board by one seat. The interests of the largest shareholder are thus better represented. The largest single shareholder is the Triumph Science & Technology Group Co. Ltd, Beijing, China (hereinafter referred to as "Triumph"), a subsidiary of China National Building Materials Group, Beijing, China, a state-owned enterprise of the People's Republic of China (hereinafter referred to as "CNBM") holds 16.75 % of the share capital of the SINGULUS TECHNOLOGIES AG and had not been represented in the Supervisory Board. An additional Supervisory Board member can expand the competence profile of the Supervisory Board through their skills and expertise. At the proposal of the Supervisory Board, Mr. Denan Chu was elected to the Supervisory Board by the Annual General Meeting on December 14, 2023. The election of Mr. Chu became legally effective with the entry of the amendment to the Articles of Association on January 24, 2024 regarding the expansion of the Supervisory Board. Mr. Chu currently holds the positions of the Board Secretary and General Manager, General Counsel and Chief Compliance Officer at Triumph. He is also member of the board of

China National United Equipment Group Corporation, Beijing, China, a CNBM Group company.

After the reporting period, Dr. Silke Landwehrmann resigned from the Supervisory Board of SINGULUS TECHNOLOGIES AG for personal reasons as of January 17, 2024. During her time on the Supervisory Board, Dr. Landwehrmann shaped the company with her extraordinary expertise and her responsible personality. The Supervisory Board and the Executive Board regretfully acknowledge this step and thank her for the committed and very good cooperation in the couple of years.

The Executive Board proposed a replacement member, Ms. Martina Rabe, Dipl. Bankbetriebswirtin, to the competent local court and the court appointed her as a member of the Supervisory Board with effect from January 17, 2024 until the next Annual General Meeting. Ms. Rabe's particular suitability results from her work in various positions at UniCredit Bank AG, Munich, and Commerzbank AG, Stuttgart, in particular in Recovery Management, as well as her current work at Norton Rose Fulbright LLP. Due to her experience as Chief Financial Officer at the internationally operating NDT Systems & Services AG, Stutensee, Ms. Rabe is qualified as a financial expert within the meaning of Article 100 Para. 5 AktG. Ms. Rabe does not hold other memberships in Supervisory Boards or comparable German and international supervisory committees of business companies.

MAIN ACTIVITIES OF THE SUPERVISORY BOARD IN THE BUSINESS YEAR 2023

In the past fiscal year 2023, the Supervisory Board performed all its duties in accordance with the statutory provisions as well as the Articles of Association, and the bylaws of SINGULUS TECHNOLOGIES. In this function, the Supervisory Board assisted the Executive Board in an advisory capacity on the management of the Company and on all significant business matters.

The set-up of committees was still not required during the period under review due to the size of the Supervisory Board. At its meeting on December 13, 2023, the Supervisory Board adopted new rules of procedure. With the entry of the Annual General Meeting resolutions on January 24, 2024, these rules of procedure for the Supervisory Board have become effective, are publicly available on the website of the SINGULUS TECHNOLOGIES AG and can be viewed under https://www.singulus.de/de/corporate-governance/. The rules of procedure came into force on January 24, 2024 with the entry of the Annual General Meeting resolutions by the responsible local court in Aschaffenburg.

A total of 15 Supervisory Board meetings were held in the fiscal year 2023. Eleven meetings were held as video calls and four meetings were held in presence. All members of the Supervisory Board appointed at the respective points in time participated in all of the Supervisory Board meetings held in the business year 2023. Generally, the Management Board attended the Supervisory Board meetings. However, the Supervisory Board also met alone when it deemed it necessary.

PRESENCE OF THE SUPERVISORY BOARD IN 2023

	Dr. Wolfhard Leichnitz	Dr. Silke Landwehrmann	Dr. Rolf Blessing	Dr. Changfeng Tu
January 16 Extraordinairy video conference	o	o	o	
Match 8 Extraordinairy video conference	o	o	o	
March 22 / 23 Video conference	o	o	o	
March 30 Extraordinairy video conference	o	o	o	
April 11 Video conference	o	o	o	
May 9 Video conference, Q1	o	o	o	
July 17 Video conference	o	o	o	
July 19 Presence	o	o	o	
July 27 Video conference, Q2	o	o		o
August 25 Presence	o	o		o
September 21 Video conference	o	o		o
October 30 Video conference	o	o		o
November 9 Presence, Q3	o	o		o
December 4 Extraordinairy video conference	o	o		o
December 13 Presence	o	o		o
Total	**15**	**15**	**8**	**7**

The Supervisory Board dealt intensively with the business development of the SINGULUS TECHNOLOGIES AG in the past business year 2023.

Furthermore, the business relations with the shareholder and major customer Triumph as well as the order situation in the segment thin-film solar technology projects was presented by the Executive Board and discussed with the Supervisory Board. For the economic stability of SINGULUS TECHNOLOGIES it is important that Triumph, as the most important customer and largest single shareholder of the company, continues to place orders, supports the company in financing issues and thus fulfills the agreements made until SINGULUS TECHNOLOGIES is able to finance itself again via the capital market.

Another focus was on supporting the audit work for the annual financial statements for the fiscal years 2021 and 2022. The audit of the annual financial statements for these two fiscal years was carried out by KPMG AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, as the appointed auditor, and was completed on April 6, 2023. The annual financial statements were approved by the Supervisory Board on April 11, 2023. As the auditor had to be switched due to legal requirements, the Supervisory Board selected a new auditing company. By court order dated May 16, 2023, Baker Tilly GmbH & Co. KG Wirtschaftsprüfungsgesellschaft (BakerTilly), Düsseldorf was appointed as the new auditor for the financial year 2022.

Baker Tilly commenced its audit work in May 2023. The unqualified audit certificate for the fiscal year 2022 was issued on October 29, 2023 and the Supervisory Board adopted the annual financial statements for 2022 on October 30, 2023 and approved the consolidated financial statements, which were subsequently published. The Annual General Meeting for the fiscal year 2022 was then convened and held on December 14, 2023. An important part of the audit work, but also of the Supervisory Board's monitoring activities, was the validation of the going concern forecast. In this regard, the Supervisory Board was advised by external experts.

At each meeting, the Supervisory Board had the Executive Board explain the liquidity situation and forecast in detail. The Supervisory Board also closely monitored the development of the shareholders' equity of the SINGULUS TECHNOLOGIES Group (IFRS) as well as the equity of SINGULUS TECHNOLOGIES Aktiengesellschaft (HGB). In particular, the Supervisory Board reviewed whether the consistently negative equity in the fiscal year 2023 is still due to the same causes as in previous years or whether there are new developments about which the Annual General Meeting must be informed. Originally, the negative shareholders' equity had resulted from differing realization of sales pursuant to HGB and IFRS. As a result, there are interim losses under the German Commercial Code, which are offset once the project in question has been completed and revenue has been recognized in full. This effect is still one of the main reasons for the negative shareholders' equity. In addition, there are operating losses in the previous years due to weak business situation.

Increasing order intake is essential for the stabilization of the Company. At each meeting, order intake, projects still under negotiation and potential new business areas and markets were discussed with the Executive Board. The Supervisory Board has always been informed why orders that have been under negotiation for a long time have not yet been finally awarded. In many cases, it was the macroeconomic environment that caused customers to hesitate when making major investment decisions.

COOPERATION WITH THE EXECUTIVE BOARD

As in the past, cooperation with the Executive Board was very good throughout fiscal year 2023. The Executive Board continuously reported to the Supervisory Board on all of the important financial indicators, such as order intake, sales, earnings and liquidity including the relevant background information. The current course of business within the individual segments was explained in detail including the respective market conditions. The Executive Board provided the Supervisory Board with the interim reports for the year 2023 as well as the half-year report for 2023 in a timely manner ahead of publication. The reports were presented by the Executive Board and important key indicators and statements explained in detail.

In addition, the Chairman of the Supervisory Board was in regular contact with the Executive Board in order to stay informed of current developments.

CONFLICTS OF INTEREST

In the past business year there were no conflicts of interest of members of the Executive or Supervisory Boards, which have to be disclosed to the Supervisory Board immediately and which the Annual General Meeting has to be informed about.

SHAREHOLDINGS OF SUPERVISORY BOARD MEMBERS

The shareholdings of Supervisory Board members are published both in the Annual Report and on the Internet.

CORPORATE GOVERNANCE

The Supervisory Board regards good corporate governance as important. In the business year 2023, the Company complied with the recommendations of the German Corporate Governance Code with the exception of the deviations published in the Declaration of Conformity with the German Corporate Governance Code in May 2023. The key deviation is the delayed presentation of financial statements for the year 2020 and 2021 as well as 2022. The declarations of conformity are publicly available on the website of the SINGULUS TECHNOLOGIES AG under https://www.singulus.de/de/corporate-governance/. A detailed presentation of corporate governance and the current Declaration of Conformity are included in the Corporate Governance Report within the Status Report of the Annual Report 2023.

EXECUTIVE BOARD MATTERS

In the course of the Supervisory Board meeting on October 30, 2023, the Supervisory Board prolonged the appointment to the Executive Board for Dr. Stefan Rinck until December 31, 2024 as well as the appointment of Markus Ehret until December 31, 2028.

Pursuant to the respective employment contracts, the variable compensation for the members of the Executive Board of the SINGULUS TECHNOLOGIES AG is comprised of the granting of phantom stocks as long-term, variable remuneration and bonus payments, which are granted on the basis of target agreements.

At its meeting on May 9, 2023, the Supervisory Board approved the target agreements for the Executive Board members for fiscal year. No adjustment to the remuneration of the Executive Board was agreed. In the business year 2023, phantom stocks were granted. The issuance did not take place until November 16, 2023 due to delays in the audit of the annual financial statements for 2022.

The remuneration system for the Executive Board and the Supervisory Board was submitted to the Annual General Meeting on July 19, 2023 for approval and approved. Further details on the remuneration of the Executive Board in fiscal year 2023 can be found in the remuneration report, which is printed in the Annual Report.

RISK MANAGEMENT

The SINGULUS TECHNOLOGIES AG has implemented an internal system to manage risks as required by applicable capital market and corporate regulations. This monitoring system is routinely adjusted to the current developments. The Supervisory Board reviewed the appropriateness and effectiveness of the Company's internal control system and risk management. During its meeting on September, 2023, the Supervisory Board was informed in detail about the risk management system and the main threats. The Compliance Management System was also discussed and it was determined that no violations had been reported.

The Supervisory Board is of the opinion that the internal control and risk management systems of the SINGULUS TECHNOLOGIES AG are appropriate and sufficiently effective. The Board agrees with the Executive Board regarding all items of the risk assessment. For further information please refer to the Risk Report of the Annual Report 2023.

Annual and consolidated financial statements as well as Status Report

The auditor issued an unqualified opinion on the financial statements for 2023 on March 30, 2024.

During the meeting on April 4, 2024, the Supervisory Board reviewed the annual financial statements of the SINGULUS TECHNOLOGIES AG according to the German Commercial Code (HGB) for the business year 2023 and the combined management report in the presence of the auditor. There were no objections raised. The annual financial statements of the SINGULUS TECHNOLOGIES AG according to HGB for the business year 2023 prepared by the Executive Board and the combined management report were approved by the Supervisory Board. Accordingly, the financial statements have been adopted pursuant to Art. 172 Sent. 1 AktG. The consolidated financial statements and the combined management report with its individual sub-reports in accordance with International Financial Reporting Standards (IFRS) for the 2023 financial year were also reviewed by the Supervisory Board at the same meeting. There were no objections raised. The consolidated financial statements and the combined Group management report with its individual sub-reports in accordance with International Financial Reporting Standards (IFRS) were approved by the Supervisory Board.

At the same meeting, the Supervisory Board approved and adopted the Supervisory Board report for the business year 2023. The Corporate Governance Report and the Compensation Report were also approved and adopted. The resolutions of the Executive Board and the Supervisory Board are included in the report of the Supervisory Board to the Annual General Meeting pursuant to Art. 172 Sent. 2.

The two annual financial statements were published on the company's website at https:/www.singulus.com/de/finanzberichte/ after completion and approval by the Supervisory Board.

The Supervisory Board would like to thank the Executive Board and all employees of the Company for their commitment and wishes everyone good health and much success for the future.

Kahl am Main, in March 2024

Dr.-Ing. Wolfhard Leichnitz
Chairman of the Supervisory Board

Report of the Executive Board

Dear Shareholders,

In recent years, the global economy has been confronted with a multitude of uncertainties and challenges, which has led to extraordinary volatility. The outbreak of the war in Ukraine, the recovery from the coronavirus pandemic and the ongoing zero-Covid policy in China were among the main driving forces. The stagnating economic situation in China exacerbated the decline in sales of our production systems in the solar sector, our most important market. These circumstances led to postponements in investment decisions on the part of our customers and had a negative impact on our company's order situation over the course of the 2023 financial year. Despite these adversities, sales revenue amounted to € 73.2 million, which was a decline compared to the previous year's level of € 87.9 million. The operating result (EBIT) fell to minus € -9.8 million in 2023.

The annual financial statements for 2020, 2021 and 2022 were adopted in the past year. The audit of the annual financial statements for the 2020 and 2021 financial years was still carried out by KPMG AG Wirtschaftsprüfungsgesellschaft (KPMG), Frankfurt am Main, as the appointed auditor, and was completed on April 6, 2023. Due to the legal requirements for rotation, the Supervisory Board elected a new auditor. The choice fell on Baker Tilly GmbH & Co KG Wirtschaftsprüfungsgesellschaft (Baker Tilly), Düsseldorf, as the new auditor for the 2022 financial year. The audit certificate for the 2022 financial year was issued by Baker Tilly on October 29, 2023, and the Supervisory Board adopted the 2022 annual financial statements on October 30, 2023, and approved the consolidated financial statements, which were subsequently published.

SINGULUS TECHNOLOGIES focuses on the development and design of innovative machines and systems for efficient production processes in the areas of thin-film technology and surface treatment. Our solutions are used worldwide in various markets such as photovoltaics, semiconductors, medical technology, packaging, glass, automotive, batteries and hydrogen.

SINGULUS TECHNOLOGIES' machines and systems are designed to increase efficiency and productivity in the various manufacturing processes. In the area of coating technology, we offer advanced processes such as sputtering (PVD/sputtering), PECVD and evaporation. These technologies enable our customers to apply thin layers precisely and evenly to various materials, which is particularly important in areas such as photovoltaics, semiconductors, hydrogen, and decorative coatings. We focus on research and development, innovation, and continuous technological progress.

Solar Segment

The importance of solar energy for the development of a secure and sustainable energy system is recognized. The energy scenarios developed by the EU as part of its climate targets for 2050 include photovoltaics as a key component. For some time now, the EU has been striving to revitalize the solar industry, with the achievement of a production capacity of 30 gigawatts along the photovoltaic value chain also being discussed in Germany. It is regrettable to note that the pace at which the key measures to promote renewable energies and tackle climate change are being implemented falls far short of the pressing challenges. Debates have been going on for over two years now and there is still a lack of concrete decisions.

However, the establishment of a functioning and independent solar industry that enables the entire value chain from silicon and solar wafers to solar cells and solar modules on an industrial scale of at least 30 to 50 gigawatts requires several years of preparation. There is an urgent need for politicians to make considerable efforts and accelerate decision-making processes in order to establish a sustainable photovoltaic industry.

SINGULUS TECHNOLOGIES is the only European company that provides the most important production steps in photovoltaics for both thin-film solar technology and the production of high-performance crystalline cells and can offer them to its customers.

We are currently maintaining intensive contacts and holding talks with a large number of potential companies and investors to supply machines and turnkey factories in Europe and the USA. We assume that decisions will be made over the course of the coming year and that we will then be able to participate in the incipient surge in demand for production machinery.

Life Science Segment

In recent years, we have worked intensively to strengthen our company in new areas and applications. In addition to our established segments, we are focusing on the life science segment and will continue to expand it. Within this segment, we are bundling our systems for applications in medical technology, primarily with production systems for the manufacture of contact lenses. For decorative coatings, SINGULUS TECHNOLOGIES offers an advanced coating method for consumer goods, which not only enables the fast and cost-effective coating of many parts, but also relies on chromium (VI)-free and solvent-free processes.

Semiconductor Segment

We have continued to develop in the semiconductor segment and have successfully expanded in the market for magnetic coating systems in recent years. Our company has established itself as the market leader in production systems for magnetic TMR/GMR sensors. We have succeeded in opening up a new, interesting application in the semiconductor segment with a new machine configuration and have sold our first machine to a large international company. This involves the production of light-emitting diodes, so-called micro-LEDs (Light Emitting Diodes).

For the future, we see the field of hydrogen as highly interesting, where we are already working with major and internationally leading partners on the development of coating systems for the coating of bipolar plates in fuel cells and electrolyzers. Our aim is to develop coatings that prevent corrosion, offer low electrical resistance, are stable in the long term and can be produced cost-effectively at the same time. The coating machines that we use for these applications are based on proven technologies that we are already using successfully in the solar sector. They make it possible to coat large throughput quantities cost-effectively and to a high standard.

Outlook for the 2024 Financial Year

For 2024, SINGULUS TECHNOLOGIES again expects an increase in sales compared to 2023. The earnings situation of our company should continue to improve. Sales in the range of € 120.0 million to € 130.0 million are expected. EBIT is expected to be in the low double-digit million range.

In order to achieve the forecast, current projects must be completed without material and time delays and further significant new orders must be realized in the coming months of 2024. This requires a growing solar market and the successful implementation of the planned major projects. In addition, sufficient orders must be concluded in the other two segments. We address this in several places in this annual report and refer here only to the company's management report and the comments in the risk report.

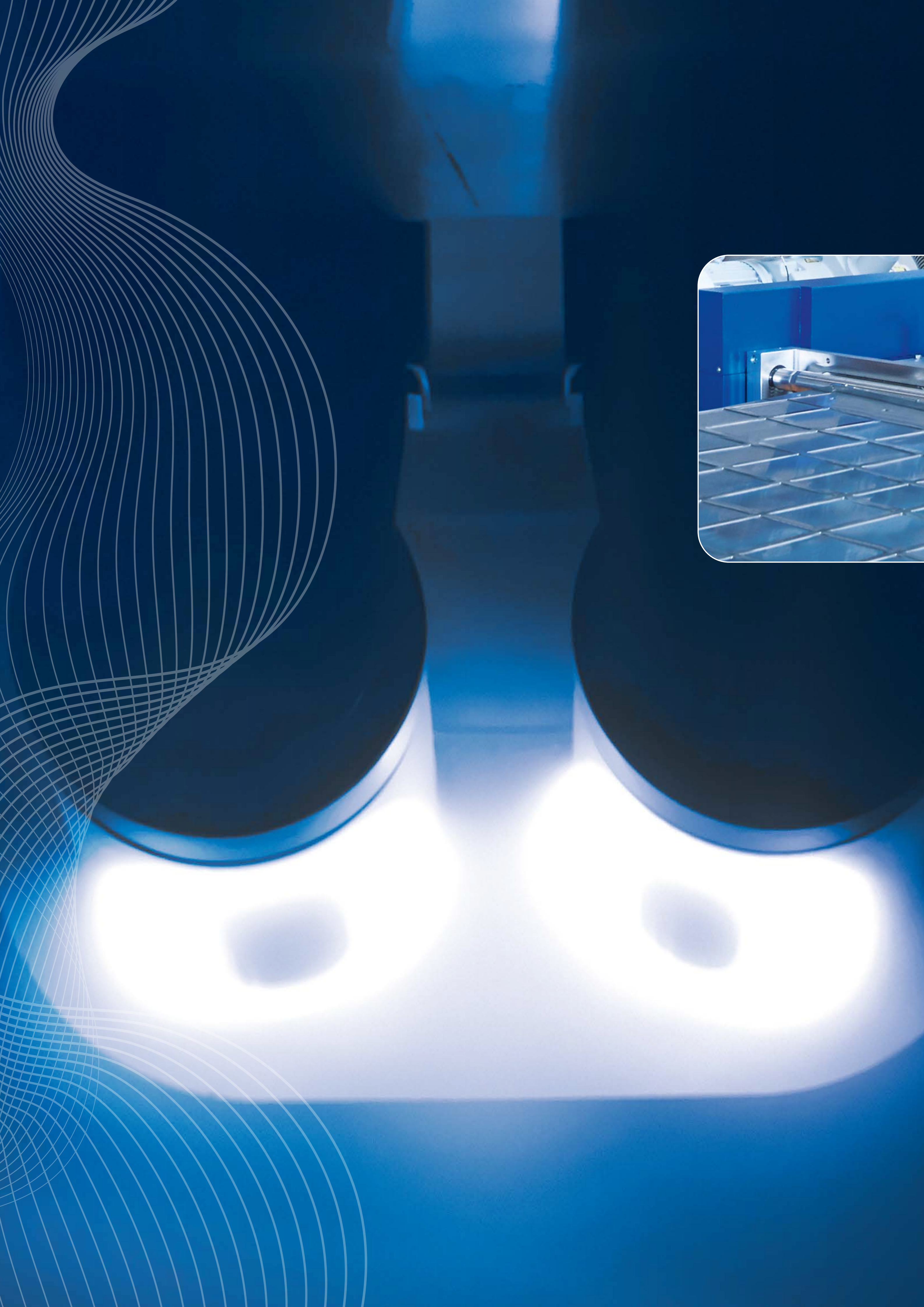
The Management Board would like to take this opportunity to thank our employees, who show great commitment to our company and a high level of motivation.

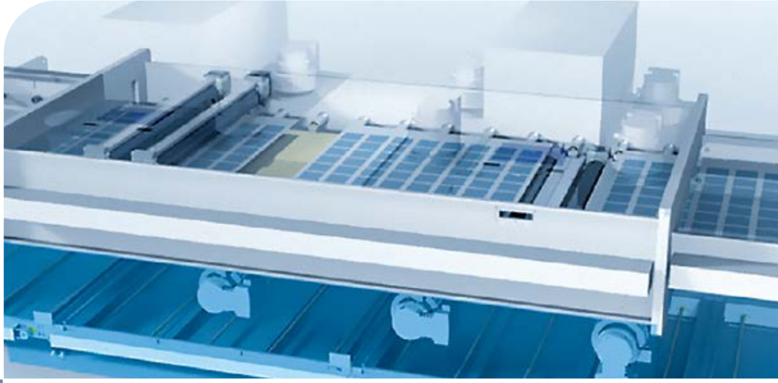
We would of course also like to thank our customers and suppliers as well as our shareholders for their trust.

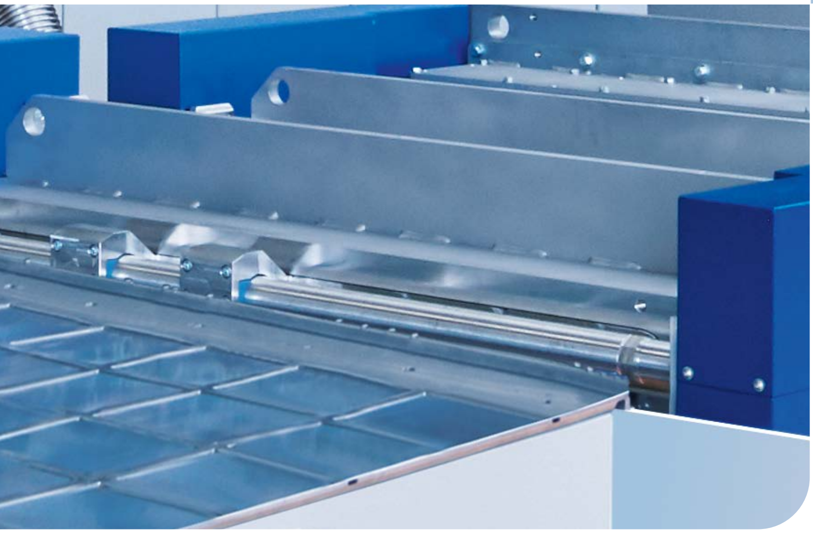
The Executive Board and the workforce will work together to turn SINGULUS TECHNOLOGIES back into a growing and profitable technology company in the coming years.

SINGULUS TECHNOLOGIES AG

The Executive Board







GENERIS PVD

Innovative Inline Vacuum Coating System

SINGULUS TECHNOLOGIES is a pioneer in the field of sputtering technology. SINGULUS TECHNOLOGIES' state-of-the-art PVD sputtering system stand for innovation and progress. The company's systems use this technology for the precise deposition of surfaces in various industries. They are mainly used in photovoltaics, hydrogen technology and the glass industry.

Compensation Report 2023

The Executive and Supervisory Boards of the SINGULUS TECHNOLOGIES AG (the Company) have drawn up this compensation report pursuant to the requirements of Art. 162 German Stock Corporation Act ("AktG").

The report explains the main features of the compensation system for the Executive Board and Supervisory Board and provides individualized information on the compensation granted and owed to current and former members of the Executive Board and Supervisory Board in the fiscal year 2023.

Due to rounding, it is possible that some numbers in this report do not add up precisely to the totals shown and that percentages presented do not accurately reflect the absolute values to which they relate.

This report has been formally audited by the Company's auditors in accordance with Art. 162 (3) of the German Stock Corporation Act (AktG); the corresponding audit certificate is included in this report.

Review of the past business year 2023

The composition of the Executive Board did not change in the year under review.

A) Compensation of the Executive Board

I. Members of the Executive Board in the business year 2023

Dr.-Ing. Stefan Rinck, CEO

Chief Executive Officer; Executive Board member responsible for Marketing & Sales, Technology, Production, Research & Development as well as Strategy and International Activities.

Dr.-Ing. Stefan Rinck has been appointed to the Executive Board until December 31, 2024.

Dipl.-Oec. Markus Ehret

Executive Board member responsible for Finance, Controlling, Investor Relations, Procurement, Human Resources and ESG (CFO).

Mr. Markus Ehret has been appointed to the Executive Board until December 31, 2028.

II. Description of the compensation structure

1. Overview compensation structure

1.1. Design and goals of compensation structure

The compensation of the individual members of the Executive Board is determined and regularly analyzed by the Supervisory Board. It is the goal to appropriately remunerate the Executive Board members according to their functions and responsibilities and to consider the individual performance as well as the economic situation, the success and the future prospects of the company.

The compensation structure for the Executive Board of the Company is determined in accordance with the provisions of the Stock Corporation Act taking into account the recommendations of the German Corporate Governance Code and is geared towards a sustainable and long-term corporate development. The total compensation of the members of the Executive Board is comprised of a fixed and a variable component, divided into short-term and long-term components as well as benefits in kind. It is in line with the Board's tasks and performance as well as with the size and situation of the Company. The compensation system ensures that both positive and negative developments are appropriately reflected in compensation (*Pay for Performance*). It takes into account both the performance of the Executive Board as a whole and the achievement of individual targets, thus remunerating the work performed by Executive Board members in a results-oriented and competitive manner and creating incentives for Executive Board members to increase the value of the Company. The compensation system is clearly structured and also easily comprehensible and transparent to shareholders.

To plan, manage and control its targets, the Company relies on the key performance indicators order intake, order backlog, sales, EBIT and liquidity. The financing of the operating activities is implemented via the capital market as well as loans from banks and investors.

Executive Board compensation is linked to these key performance indicators, the achievement of strategic goals and the share price via variable compensation. In this way, the compensation system makes a significant contribution to promoting the business strategy and the long-term and sustainable development of the Company. In particular the variable components (annual bonus due to agreed targets and share-based compensation) are aligned with the growth targets for the segments Solar, Semiconductor and Life Science.

The system aims to align the interests of the Executive Board with those of shareholders and other stakeholders. It is geared to providing effective incentives for strengthening the operational success of the Company and sustainably increasing its value. The structure of the long-term, variable component is designed to tie the members of the Executive Board to the Company in the long-term.

The fixed, non-performance-based part is composed of a fixed salary and benefits in kind. It is targeted to amount to 60 % of the target compensation. The high proportion of fixed compensation aims to prevent the Executive Board to enter unreasonably high risks to reach short-term targets.

The performance-related components are split into a variable bonus and a share-based compensation component (phantom stocks). The variable bonus is tied to achieving individual targets, which include financial, operating and strategic goals including sustainability goals. The phantom stock program is intended to create a long-term incentive and commitment effect by issuing virtual shares. After the lapse of a waiting period of two years the phantom stocks can be exercised in tranches of 25 % semi-annually if the share price of the company exceeds a specified minimum percentage level above the exercise price. The incentive effect is achieved through performance targets, vesting periods and staggered exercise. Effects from short-term share price increases, which are market-related and not company-related, are thus largely eliminated. The phantom stocks represent a compensation component with a multi-year assessment basis that links the compensation of the Executive Board members to the performance of the stock, thus creating an alignment of the interests of the Executive Board and the shareholders.

In its entirety the compensation framework takes into account the regulation of the Stock Corporation Act and the Corporate Governance Code.

1.2. Process to determine, implement and review the compensation

Pursuant to Art. 87a AktG, the Supervisory Board of the Company is responsible for the structure of the system as such, the determination as well as the regular review of the Executive Board compensation system and the total compensation of the individual Executive Board members. In order to assess whether the compensation of the individual members of the Executive Board is in line with market practices, the Supervisory Board bases its determination of the amount of the target compensation on the situation of the Company, the compensation paid by comparable companies to the members of their management (horizontal comparison) as well as the salary level of the first and second management levels within the Company (vertical comparison). The Supervisory Board also ensures that compensation remains competitive so that Executive Board members can be retained and new ones recruited. A balance is achieved through the size of the Executive Board, which currently has the statutory minimum number of members.

The Supervisory Board regularly reviews the structure and appropriateness of the compensation in the course of its first Supervisory Board meeting of the year. In the review the Board takes into consideration the individual performance and the extent of the responsibilities assumed compared with the other members of the Executive Board as well as the economic situation of the company.

In case of material changes in the compensation system, however at least every four years, the compensation system is presented in the course of the Annual General Meeting for approval. The applicable compensation system for members of the Executive Board was approved by the Annual General Meeting by resolution of June on July 19, 2023. Pursuant to Art. 87a (2) AktG, the Supervisory Board may temporarily deviate from the compensation system if this is necessary in the interests of the long-term welfare of the Company. The Supervisory Board has made use of this reduction option in the past due to the difficult economic situation of the Company. However, a reduction of the compensation was not implemented in the business year 2023, since the commitment of the Executive Board to safeguard the continuation was very high in the period under review.

1.3. Composition of the compensation

The fixed, non-performance-based part is composed of a fixed annual salary and benefits in kind such (including cars and insurance).

The performance-based components are split into a variable bonus and phantom stocks. Furthermore, the contracts of the members of the Executive Board provide the Supervisory Board the possibility to grant one-off special payments for extraordinary performance in addition to the variable compensation components (“**One-time Bonus**”).

The compensation covers the entire activities of the Executive Board members, and accordingly also other Group-internal functions and activities of the respective Executive Board members.

At the request of the Executive Board, the Company takes out a life insurance policy for the Executive Board member concerned as part of a salary conversion scheme.

1.3.1. Fixed salary

The fixed, non-performance based, annual salary of the members of the Executive Board is paid in twelve equal partial payments at the respective end of the months and for the last time for the full month during which the employment contract terminates. It is reviewed annually according to appropriateness and adjusted, if required. An adjustment can also be made by granting one-time bonus payments. There was no adjustment of the fixed salary during the year under review.

1.3.2. Variable bonus (target agreements)

The variable bonus is tied to the achievement of individually agreed targets. These targets are reset annually by the Supervisory Board and individually agreed with the members of the Executive Board following the adoption of the budget for the subsequent year. They are based on the respective strategic objectives for the Company, operating and financial key indicators as well as sustainability goals, which have been defined by the Supervisory Board in consultation with the Executive Board. Generally, the targets consist of 50 % financial, 30 % operating and 20 % strategic targets. Strategic objectives also include the achievement of sustainability goals (ESG), which are set by the Supervisory Board. The amount of the bonus is subject to the respective percentage achievement of the target. The assessment basis is the amount corresponding to 80 % of the applicable fixed salary. A weighted average is formed from the individual percentages achieved for each individual annual target. This is applied to the assessment basis to determine the amount of the bonus. The variable bonus may not exceed 80 % of the fixed salary. If the annual targets are exceeded by the respective member of the Executive Board, the Supervisory Board may increase the target achievement to up to 120 % on a case by case evaluation at its sole discretion. In case of an assumed 100 % achievement of the annual targets on average the bonus corresponds to 80 % of the fixed salary. If the targets are not achieved or only partially by less than 50 %, the Supervisory Board decides at its sole discretion if and to what extent a bonus will be paid.

1.3.3. Phantom stocks

The phantom stocks program is the second component of variable compensation and is intended to provide a long-term incentive and retention effect by linking compensation to the sustainable performance of the Company. The best indicator of performance is the share price.

The Supervisory Board determines the number of granted phantom stocks at its own discretion. Each individual phantom stock is designed as a virtual option and entitles after the lapse of a waiting period of two years and the achievement of a success target to receive a payment which corresponds to the difference at exercise between the respective exercise price and the reference price for a bearer share of the company with a nominal value of € 1.00 each. The exercise price corresponds to the simple average of the closing prices (or a relevant subsequent closing price) of the shares of the company on the Xetra platform (or a functionally equivalent subsequent system to the Xetra platform) at the Frankfurt Stock Exchange on the five trading days before the issue date. The reference price corresponds to the (non-weighted) simple average of the closing prices (or a relevant subsequent closing price) of the shares of the company on the Xetra platform (or a functionally equivalent subsequent system to the Xetra platform) at the Frankfurt Stock Exchange on the five trading days before the exercise date. The phantom stocks can be exercised for the first time after a vesting period of two years, which starts at the time of issuing the stocks.

After the end of the waiting period, the phantom stocks can be exercised each year within an exercise period. There are two exercise periods, the first begins after publication of the interim report for the first quarter, the second begins after publication of the interim report for the third quarter. During each exercise period only up to 25 % of the granted phantom stocks can be exercised. If an exercise tranche is not exercised during the exercise period, it can be additionally exercised during later exercise periods. Furthermore, the exercise of the phantom stocks is only possible upon reaching the success target, i.e. if the reference price at the time of the exercise is at least 15 % higher than the exercise price.

During the term of the phantom stock programs, option rights from the phantom stocks can also be exercised prematurely, i.e. also outside the respective exercise period and before the end of the waiting period, as soon as (i) a takeover bid within the meaning of Art. 29 Para. 1 WpÜG has been published for the company's shares or (ii) a person acquires control within the meaning of Section 29 (2) WpÜG. In these cases, all phantom stocks can be exercised, regardless of whether the performance target has been achieved.

The term of the phantom stocks is five years each after the respective issue date. Phantom stocks, which are not exercised by the end of this term, expire without replacement and compensation.

1.4. Maximum compensation

Pursuant to Art. 87a Para. 1 Sent. 3 No. 1 AktG, the Supervisory Board has set the maximum compensation set out below:

The applicable Executive Board service agreements stipulate that the maximum compensation that the respective Executive Board member can receive in the course of a year (fixed and variable compensation including fringe benefits, a possible one-time bonus and pension contributions) is limited to 3.5 times the respective fixed salary.

In addition, separate maximum amounts are set for the variable compensation components. In the business year 2023, the maximum compensation level was not exceeded.

1.4.1. Variable remuneration

The variable annual bonus may not exceed 80 % of the fixed salary; this also holds true if the target achievement exceeds over 100 %.

1.4.2. Phantom stocks

The granted cash compensation upon exercise of the phantom stocks is limited to three times the exercise price of each phantom stock. In addition, the granted cash compensation from the phantom stocks programs within a period of one year may not exceed the amount of the annual fixed salary. This also holds true if exercise tranches become due within one year, which result from phantom stock programs from different years.

1.4.3. One-off compensation

A potential extraordinary payment granted by the Supervisory Board may only amount to half of the fixed salary and is subject to the overall limit of the compensation, which the member of the Executive Board may receive during the course of one year.

2. Compensation for the business year 2023

The Company uses the vesting-oriented view for "compensation granted". Accordingly, compensation is (already) stated in the compensation report for the financial year in which the activity on which the compensation is based (one or more years) was fully performed. This view enables a meaningful comparison, as, for example, the variable short-term remuneration for the year 2023 is set against the earnings situation of the financial year 2023.

2.1. Fixed salary

The contractually agreed annual fixed compensation of the Executive Board members in the fiscal year 2023 was € 440 thousand for the Chairman of the Executive Board Dr.-Ing. Stefan Rinck and € 300 thousand for Mr. Markus Ehret.

The amount of the fixed compensation depends on the function on the Executive Board and the length of service on the Executive Board.

2.2. Short-term variable compensation

In addition to the fixed salary, the company grants the members of the Executive Board an annually set variable gross compensation (“**Bonus**”). The respective amount is determined by the Supervisory Board for the respective business year on the basis of annually agreed targets.

The target agreements for the 2023 financial year were concluded on May 9, 2023. These include financial, operational and strategic targets. On March 14, 2024, the Supervisory Board assessed the goal achievement and determined an achieved level of 30 % overall for Dr.-Ing. Stefan Rinck and also 30 % for Markus Ehret. This results in a variable compensation of € 106 thousand and € 72 thousand, respectively.

The activity on which the variable compensation is based was performed in full by the balance sheet date.

The variable compensation is therefore classified as granted for the 2023 financial year, even if the payment is not made until after the completion of the 2023 financial year.

2.3. Long-term variable compensation (phantom stocks)

The Company grants the members of the Executive Board each year phantom stocks pursuant to the phantom stock program resolved by the Supervisory Board.

The phantom stocks for fiscal year 2022 were issued November 16, 2023. The late issue was due to the fact that the 2022 annual financial statements were not published until October 31, 2023. Dr.-Ing. Stefan Rinck was granted 150,000 phantom stocks and Markus Ehret 100,000 phantom stocks.

In the 2023 financial year, the Executive Board did not exercise any phantom stocks from previous years' programs.

At the end of fiscal year 2023 Dr.-Ing. Stefan Rinck held 600,000 phantom stocks, which are composed as follows: (i) 150,000 phantom stocks granted under the 2019 program, (ii) 150,000 phantom stocks granted in fiscal 2020, (iii) 150,000 phantom stocks granted in fiscal 2022 and (iv) 150,000 phantom stocks granted in fiscal 2023.

Markus Ehret held 400,000 phantom stocks, which are composed as follows: (i) 100,000 phantom stocks granted under the 2019 program, (ii) 100,000 phantom stocks granted in fiscal 2020, (iii) 100,000 phantom stocks granted in fiscal 2022, (iv) 100,000 phantom stocks granted in fiscal 2023.

The terms and exercise prices of the individual tranches are shown in the following table:

	Year of issue	Day of issue	Quantity	End of waiting period	Program expiry
Dr.-Ing. Stefan Rinck	2019	April 11, 2019	150,000	April 11, 2021	April 11, 2024
	2020	April 3, 2020	150,000	April 3, 2022	April 3, 2025
	2022	June 17, 2022	150,000	June 17, 2024	June 17, 2027
	2023	Nov 16, 2023	150,000	Nov 16, 2025	Nov 16, 2028
		Total	**600,000**		

	Year of issue	Day of issue	Quantity	End of waiting period	Program expiry
Markus Ehret	2019	April 11, 2019	100,000	April 11, 2021	April 11, 2024
	2020	April 3, 2020	100,000	April 3, 2022	April 3, 2025
	2022	June 17, 2022	100,000	June 17, 2024	June 17, 2027
	2023	Nov 16, 2023	100,000	Nov 16, 2025	Nov 16, 2028
		Total	**400,000**		

The allocation of the fair value of the phantom stocks on an accrual basis led to income of € 22 thousand in the 2023 financial year. Dr.-Ing. Stefan Rinck's phantom stocks accounted for income of € 13 thousand and Markus Ehret's phantom stocks accounted for income of € 9 thousand.

The activity on which the long-term, variable compensation is based was performed in full by the balance sheet date. The long-term, variable compensation is therefore classified as granted for the 2023 financial year, even if issuance of the phantom stocks is not made until after the completion of the 2023 financial year.

2.4. Other compensation

In addition, the members of the Executive Board receive fringe benefits in kind, such as company cars or lump-sum compensation for use of private cars for professional purposes as well as casualty and personal liability insurances. Each individual Executive Board member has to pay taxes on these fringe benefits as part of the overall compensation.

The other compensation for the business year 2023 amounted to € 52 thousand for Dr.-Ing. Stefan Rinck and € 34 thousand for Mr. Markus Ehret. The members of the Executive Board did not receive additional compensation in the business year 2023 for their activities as managing directors of subsidiaries. A lump-sum share in the amount of 15 % of the fixed salary and the annual variable compensation is deemed to be the compensation for these activities.

2.5. Application of malus and clawback during the reporting period

Dr.-Ing Stefan Rinck's employment contract only provided for the possibility of withholding (malus) and reclaiming remuneration already paid out (clawback) from the contract extension on December 1, 2023. No use was made of this provision. The employment contract that applied to Mr. Markus Ehret throughout the 2023 financial year did not contain a malus and clawback provision. The new employment contract for Mr. Ehret, which contains such a provision, came into force on 1 January 2024.

2.6. Overview individual compensation

The following table presents the individual total compensation of the Executive Board members and the relative share of the respective compensation component in total compensation in accordance with Art. 162 AktG. The activity on which compensation is based was performed in full by the balance sheet date. Compensation for the Executive Board activities is therefore classified as granted for the 2023 financial year, even if payment is not made until after the 2023 financial year.

Compensation granted and owed for fiscal year 2023													
			Fixed components			Variable components							
Current members of the Executive Board	Date of entry	Last position	Fixed compensation in € K	Fringe benefits in € K	Total in € K	One-year variable compensation in € K	Multi-year variable compensation in € K	Special payments in € K	Total in € K	Total compensation in € K	Share of fixed compensation in %	Share of variable compensation in %
Dr.-Ing. Stefan Rinck	Sept 1, 2009	CEO	440	52	492	106	104	0	210	702	70	30
Markus Ehret	April 19, 2010	CFO	300	34	334	72	69	0	141	475	70	30
Total			**740**	**86**	**826**	**178**	**173**	**0**	**351**	**1,177**	**70**	**30**

3. Granted benefits after the regular termination of service on the Executive Board

The members of the Executive Board receive a company pension plan financed by the company in the form of defined contributions. The company pays the members of the Executive Board an annual pension contribution in the amount of a specific percentage of their gross fixed annual salary set out in the employment contracts. This percentage shall not exceed 35 % of pensionable income. This form of pension enables the company to reliably calculate the annual expenses. The amount of the pension payment was calculated as a percentage of the fixed salary on the basis of an approximately targeted pension level, a hypothetical tenure and the expected interest rate development according to actuarial principles. However, the actual pension level is not fixed for a defined-contribution pension, since it depends on the tenure as an Executive Board member and the interest rate development.

The pension benefits include pensions and surviving dependents' pensions. With respect to the pension, it is determined that if a member of the Executive Board retires from the company after completion of the age of 63, a monthly pension or a lump sum will be paid. If a member of the Executive Board retires from the company before the age of 63 but after completion of the age of 60, as an early pension an early monthly pension or an early lump sum will be paid, if the member of the Executive Board asks for the payment of the early pension benefits at the time of leaving the company. The amount of the (early) retirement benefit is based on actuarial principles. In case of death of a member of the Executive Board before claiming (early) pension benefits, the surviving spouse will receive a surviving dependents' lump sum. The amount of the surviving dependents' capital is determined when the insured event occurs and corresponds to the respective premium refund due in the event of death before the start of the pension.

In case of death after claiming the (early) pension benefits through monthly payments, but before the lapse of 20 years after retirement, the surviving spouse will receive a temporarily limited surviving dependent's pension until the lapse of this 20-year period. If there is no surviving spouse entitled for benefits, under certain conditions the surviving children will receive surviving dependents' payments in equal parts.

The pension plan is outsourced to Towers Watson Second e-Trust e.V. ("**Association**") and is not a charge to the Company's balance sheet. The Association concludes a corresponding liability insurance to insure the pension benefits.

If a member of the Executive Board leaves the Company before the pension benefits are due, the proportional claim for pension benefits remains, regardless whether at the time of leaving the legal vesting applies pursuant to the relevant regulations of the employers' retirement benefits law.

The annual pension contribution for Dr.-Ing. Stefan Rinck amounts to 59.97 % since January 2012 and for Mr. Markus Ehret to 31.58 % since January 1, 2018. The annual pension contributions for the company paid in the year 2023 amounted to approx. € 359 thousand, with approx. € 264 thousand attributable to Dr.-Ing. Stefan Rinck and approx. € 95 thousand attributable to Mr. Markus Ehret.

4. Severance policies

In case of an early termination of the employment contract through statutory notice of termination or in case of termination of appointment to the Executive Board, the members of the Executive Board receive a severance payment limited to two years' compensation (severance cap). The amount is set according to the fixed salary excluding benefits in kind and ancillary benefits in addition to a lump-sum variable compensation in the amount of 25 % of the respective fixed salary considering the pension benefits. If the remaining term of the respective Executive Board employment contract is less than two years, the severance payment is reduced pro rata temporis to the remaining term of the employment contract. In case of an extraordinary dismissal for cause by the Company, there is no right to a severance payment.

5. Claims in the event of death or permanent incapacity for work

In the event of death, the employment contracts of all current members of the Executive Board provide for the continued payment of the fixed remuneration to his widow and dependent children for the month in which the death occurred and for the following nine months, but no longer than until the end date of the respective employment contract.

In the event of permanent incapacity for work and receipt of sick pay, the employment contracts of all current members of the Executive Board provide for entitlement to the difference between the net fixed salary and the net sick pay for a further period of nine months, at the longest, however, until the end date of the respective employment contract.

6. Benefits by third parties

No benefits by third parties were granted or promised to members of the Executive Board with respect to their work as Executive Board members during the period under review.

7. Change of control clauses

The employment contracts of the Company with the Executive Board members historically included a change of control clause. Accordingly, the members of the Executive Board of the Company have an extraordinary termination right, which entitles them to terminate their employment within a period of one year after the change in control at any time with a notice period of six months. These employment contracts expired for both members of the Executive Board in the 2023 financial year. The newly concluded service contracts no longer contain a change of control clause.

Specifically, the Supervisory Board extended the appointment of Dr.-Ing. Stefan Rinck until December 31, 2024 on October 30, 2023. In this context, a new employment contract was concluded, which came into force on December 1, 2023 and, in accordance with the recommendations of the GCGC, does not contain any provision in the event of a change of control. Furthermore, on October 30, 2023, the Supervisory Board extended the appointment of Mr. Markus Ehret with effect from January 1, 2024 for a further five years until December 31, 2028. In this context, a new employment contract was concluded with Mr. Markus Ehret with effect from January 1, 2024, which also no longer contains a provision in the event of a change of control.

B) Compensation of the Supervisory Board

The system for the compensation of Supervisory Board members is based on the statutory requirements of the German Stock Corporation Act. The compensation for the Supervisory Board is set out in Art. 11 of the Articles of Association of the Company. It is balanced overall and is based on the duties and responsibilities of the Supervisory Board members and on the situation of the Company, also taking into account the compensation arrangements of comparable companies. This enables the best possible monitoring and advice to be provided to the Executive Board, which in turn makes a significant contribution to a successful business strategy and the long-term success of the Company.

In addition to the reimbursement of expenses, the members of the Supervisory Board receive a fixed compensation in the amount of € 40 thousand for each full business year of being a member of the Supervisory Board, which is paid after completion of the business year. The Chairman of the Supervisory Board receives twice this amount, the Deputy Chairman one and a half times the fixed compensation. Members of the Supervisory Board, who are only members of the Supervisory Board or who are Chairperson or Deputy Chairperson in the Supervisory Board for parts of the business year, receive a pro-rated fixed compensation. No performance-related compensation or financial or non-financial performance criteria are provided for. This best reflects the independent control and advisory function of the Supervisory Board, which is not geared towards short-term corporate success but to the long-term development of the Company. The company does not grant any attendance fees. The remuneration does not change even if the Supervisory Board meets frequently.

The Annual General Meeting shall determine the compensation of the members of the Supervisory Board in the Articles of Association at the proposal of the Executive Board and the Supervisory Board. The Annual General Meeting shall resolve on the compensation of the members of the Supervisory Board at least every four years. In this context, a resolution confirming the existing remuneration is also permissible. The remuneration of the Supervisory Board was once again approved by the Annual General Meeting on July 19, 2023 after the reporting period.

The contractually agreed total compensation of the Supervisory Board amounted to € 180 thousand in the business year 2023.

The following table presents the compensation granted and owed to members of the Supervisory Board in fiscal year 2023 in accordance with Art. 162 of the German Stock Corporation Act (AktG). The activity on which compensation is based was performed in full by the balance sheet date. Compensation for the Supervisory Board activities is therefore classified as granted for the 2023 financial year, even if payment of the Supervisory Board compensation pursuant to Art. 11 of the Articles of Association was not made until after the 2023 financial year.

			Fixed components			Variable components						
Current members of the Supervisory Board	Date of entry	Last position	Basic remuneration in € K	Meeting fees in € K	Total in € K	One-year variable compensation in € K	Multi-year variable compensation in € K	Special payments in € K	Total in € K	Total compensation in € K	Share of fixed compensation in %	Share of variable compensation in %
Dr.-Ing. Wolfhard Leichnitz	May 29, 2009	Chairman	80	0	80	0	0	0	0	80	100	0
Silke Landwehrmann	Aug 11, 2019	Vice Chairwoman	60	0	60	0	0	0	0	60	100	0
Dr. rer. nat. Rolf Blessing (until July 19, 2023)	May 31, 2011	Member	22	0	22	0	0	0	0	22	100	0
Dr. Changfeng Tu	July 19, 2023	Member	18	0	18	0	0	0	0	18	100	0
Total			**180**	**0**	**180**	**0**	**0**	**0**	**0**	**180**	100	0

In the year under review, the members of the Supervisory Board did not receive any compensation or benefits for personally-performed services, in particular consulting or agency services.

C) Loans granted to the members of the Executive and Supervisory Board

The company did not grant any members of the Executive Board or the Supervisory Board advance payments or loans during the year under review.

D) Comparative presentation of the change in compensation

In accordance with Art. 162 Para. 11 Sent. 2 No. 2 AktG, the following table presents the development of the Company's earnings, the total annual compensation granted and owed to current and former members of the Executive Board and the Supervisory Board, and the annual change in the average compensation of employees considered over the last five financial years on a full-time equivalent basis. In the business year 2023, this averaged 255 persons. The compensation of all employees of the Company in Germany, including senior executives as defined in Art. 5 (3) of the German Works Constitution Act (Betriebsverfassungsgesetz), was taken into account. In each case, all collectively agreed salary components or agreed fixed salaries, agreed bonuses and supplements, and any variable compensation components attributable to the 2023 financial year, such as bonuses or special payments, were included in the analysis. The components of the average employee compensation presented therefore correspond in principle to the compensation granted and owed to the members of the Executive Board and the Supervisory Board pursuant to Art. 162 Para. 1 Sent. 1 AktG.

	2019	2020	Annual change	2021	Annual change	2022	Annual change	2023	Annual change
	[in € K]	[in € K]	[in %]	[in € K]	[in %]	[in € K]	[in %]	[in € K]	[in %]
Current members of the Executive Board									
Dr.-Ing. Stefan Rinck (CEO)	**1,429**	**1,250**	-13	**562** [1)]	-55	**802**	43	**702**	-12
((thereof phantom stocks issued	***516***	***588***		**-**		***226***		***104***	
Markus Ehret (CFO)	**966**	**835**	-14	**379** [1)]	-55	**643**	70	**475**	-26
(thereof phantom stocks issued)	***344***	***392***		**-**		***151***		***69***	
Former members of the Executive Board									
Dr. rer. nat. Christian Strahberger (COO) (Nov 1, 2019 - Oct 31, 2022)	**52**	**711**	1,267	**367** [1)]	-48	**305**	-17	**-**	-
(thereof phantom stocks issued)	**-**	***392***		**-**		**-**		**-**	
Current members of the Supervisory Board									
Dr.-Ing. Wolfhard Leichnitz	**80**	**76**	-5	**80**	5	**80**	0	**80**	0
Dr. Silke Landwehrmann	**16**	**50**	213	**60**	20	**60**	0	**60**	0
Dr. Changfeng Tu (since July 19, 2023)	**-**	**-**	-	**-**	-	**-**	-	**20**	-
Former members of the Supervisory Board									
Christine Kreidl (Dec 4, 2012 - Aug 10, 2019)	**36**	**-**	-	**-**	-	**-**	-	**-**	-
Dr. rer. nat. Rolf Blessing (May 31, 2011 - July 19, 2023)	**40**	**38**	-5	**40**	5	**40**	0	**18**	-55
Average compensation of employees									
Employees of SINGULUS TECHNOLOGIES AG	**73**	**58**	-20	**69**	18	**69**	1	**75**	8
Earnings development of the company									
EBIT (IFRS) [in € million]	**-8.2**	**-36.8**	-349	**-12.4**	66	**5.9**	148	**-10.1**	-271
Net income (HGB) [in € million]	**-17.5**	**-34.6**	-98	**-21.8**	37	**-11.8**	46	**0.1**	101

[1)] In 2021 no phantom stocks were issued, so that the issue values of the phantom stocks were not offset here

INDEPENDENT AUDITOR'S REPORT ON THE AUDIT OF THE REMUNERATION REPORT IN ACCORDANCE WITH SECTION 162 (3) AKTG

To Singulus Technologies AG, Kahl am Main

Audit opinion

We have formally audited the remuneration report of Singulus Technologies AG for the financial year from January 1 to December 31, 2023 to determine whether the disclosures pursuant to Section 162 (1) and (2) AktG have been made in the remuneration report. In accordance with § 162 Abs. 3 AktG, we have not audited the content of the remuneration report.

In our opinion, the accompanying remuneration report includes, in all material respects, the disclosures required by section 162 (1) and (2) AktG. Our audit opinion does not cover the content of the remuneration report.

Basis for the audit opinion

We conducted our audit of the remuneration report in accordance with § 162 Abs. 3 AktG and IDW Auditing Standard: The Audit of the Remuneration Report in Accordance with Section 162 (3) AktG (IDW PS 870 (08.2021)). Our responsibilities under this requirement and this standard are further described in the "Auditor's Responsibilities" section of our report. As an auditing practice, we have fulfilled the requirements of the IDW Quality Management Standard: Requirements for Quality Management in the Auditing Practice (IDW QMS 1). We have complied with the professional requirements of the German Public Auditors' Code and the Professional Code for Public Auditors / Certified Public Accountants, including the independence requirements.

Responsibility of the Management Board and the Supervisory Board

The Management Board and the Supervisory Board are responsible for the preparation of the remuneration report , including the related disclosures, in accordance with the requirements of Section 162 AktG. In addition, they are responsible for such internal control as they have determined necessary to enable the preparation of a remuneration report that is free from material misstatement, whether due to fraud or error.

Responsibility of the auditor

Our objective is to obtain reasonable assurance about whether the remuneration report includes, in all material respects, the disclosures required by section 162 (1) and (2) AktG and to issue an auditor's report thereon.

We planned and performed our audit such that we can determine the formal completeness of the remuneration report by comparing the disclosures made in the remuneration report with the disclosures required by section 162 (1) and (2) AktG. In accordance with § 162 Abs. 3 AktG, we have not audited the content of the disclosures, the completeness of the individual disclosures or the fair presentation of the remuneration report.

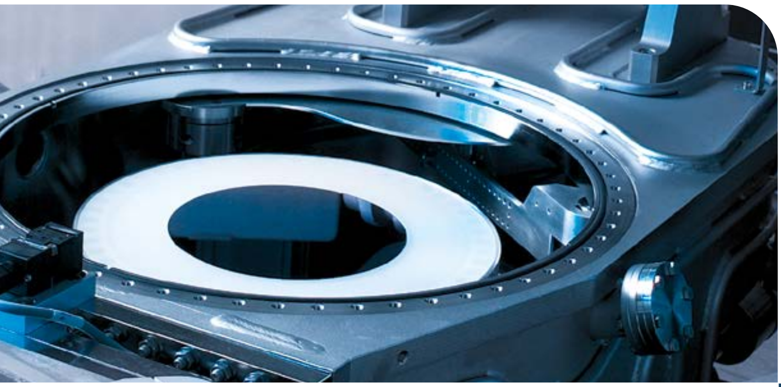
Limitation of liability

For the performance of the engagement and our responsibility and liability, including in relation to third parties, the "General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften" in the version dated January 1, 2017 issued by the Institut der Wirtschaftsprüfer apply.

Düsseldorf, March 30, 2024

Baker Tilly GmbH & Co KG
Auditing company
(Düsseldorf)

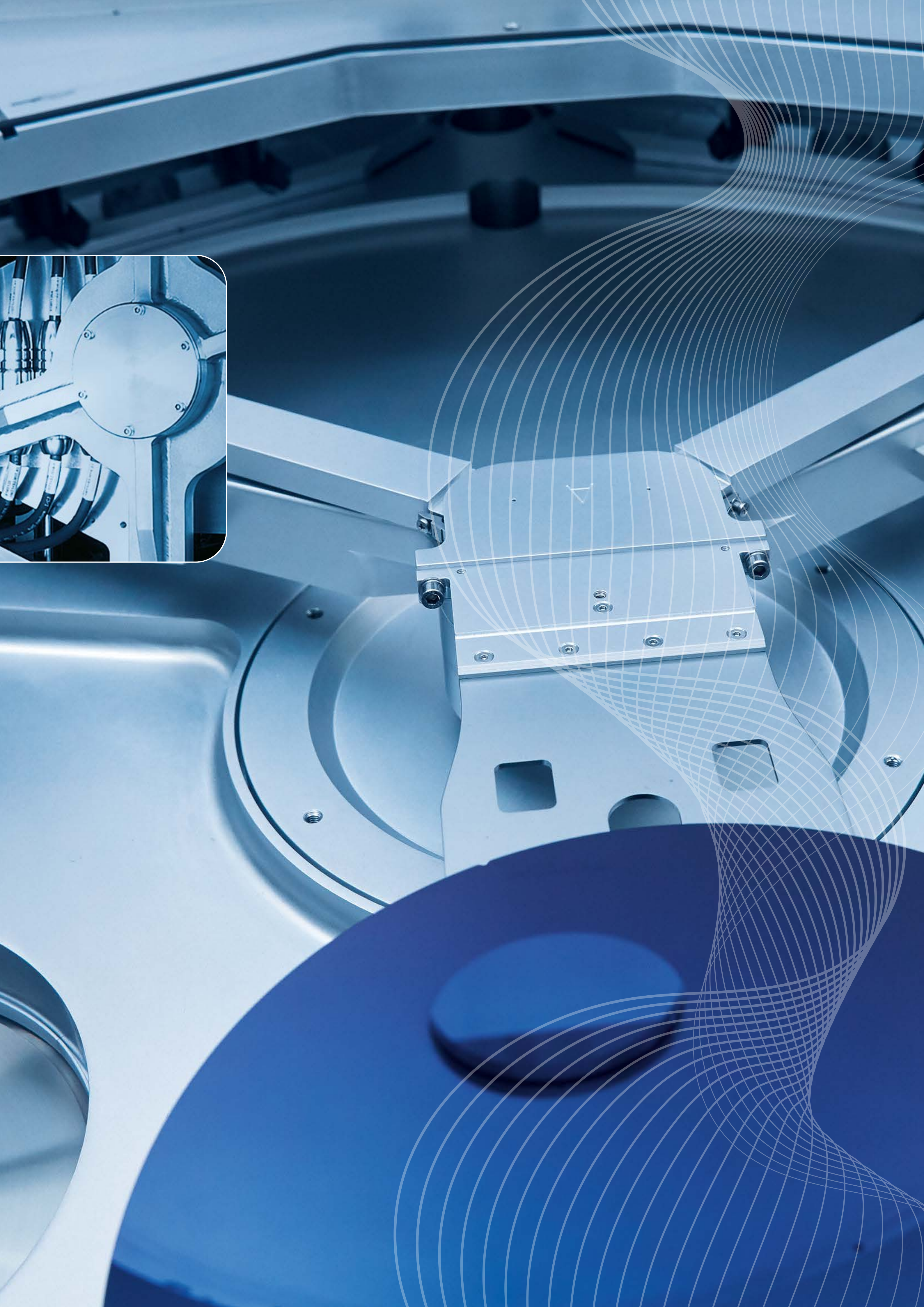
Thomas Gloth	Jonas Hagen
Auditor	Auditor



TIMARIS

Vacuum Deposition System for Semiconductor Technology

SINGULUS TECHNOLOGIES offers innovative solutions for the precise deposition of sensors, inductors, micro-LEDs and other semiconductor applications. The TIMARIS system platform enables a modular configuration with various process and add-on modules to optimally meet the requirements of different applications.



CONTENT

Combined Status Report of the SINGULUS TECHNOLOGIES Group and the SINGULUS TECHNOLOGIES AG

Combined Status Report of the SINGULUS TECHNOLOGIES Group and the SINGULUS TECHNOLOGIES AG

SINGULUS TECHNOLOGIES received the audit opinions for its 2020 and 2021 annual financial statements in April 2023 after the responsible auditor was sufficiently convinced of the Company's positive going concern forecast. In May 2023, Baker Tilly GmbH & Co. KG was appointed as the new auditor on a rotational basis and issued an unqualified audit opinion for the single-entity and consolidated financial statements for the fiscal year 2022 on October 29, 2023.

The business year of the company corresponds to the calendar year and ended on December 31, 2023.

The Company exercised its right pursuant to Art 315 (5) German Commercial Code (Handelsgesetzbuch (HGB)) to prepare a combined status report for the SINGULUS TECHNOLOGIES Group and the SINGULUS TECHNOLOGIES AG. Since the course of business, the situation of the Company as well as the opportunities and risks of future developments of the SINGULUS TECHNOLOGIES AG and the SINGULUS TECHNOLOGIES Group broadly coincide, the following statements, in particular references to specific data, refer to the SINGULUS TECHNOLOGIES Group, if not stated otherwise.

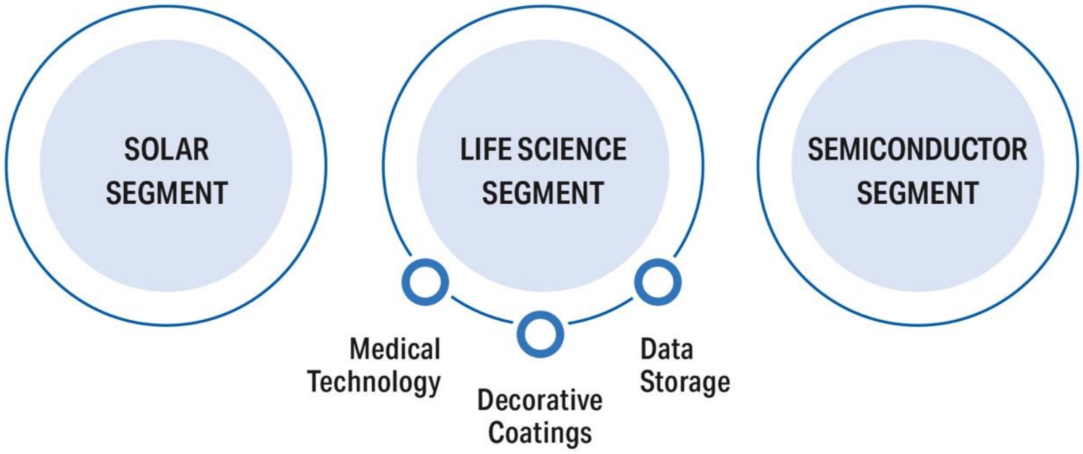
Basics of the Group

Business Model and Divisions of the SINGULUS TECHNOLOGIES Group

SINGULUS TECHNOLOGIES (hereinafter also referred to as the Company) is a global high-tech engineering company specializing in the development, manufacture and sale of vacuum coating technology, surface technology, wet-chemical and thermal process technology. The offer includes the sales of systems and services.

The business activities of the Company are divided into three segments. They include:

SEGMENT STRUCTURE



Solar Segment

In the Solar segment SINGULUS TECHNOLOGIES focuses on the processes and machines for the production of crystalline solar cells as well as thin-film solar cells on the basis of copper-indium-gallium-diselenide (CIGS) and cadmium-telluride (CdTe). Amongst others, the Company offers vacuum coating machines, thermal processing systems and wet-chemical treatment machines. The work area of crystalline silicon solar cells also includes high performance cell concepts such as HJT (heterojunction), IBC (interdigitated back contact) and TOPCon (tunnel oxide passivated contacts) solar cells as well as tandem solar cells (e.g. Perovskite tandem solar cells). In addition, SINGULUS TECHNOLOGIES offers complete production lines for the manufacturing of solar cells and modules.

Life Science Segment

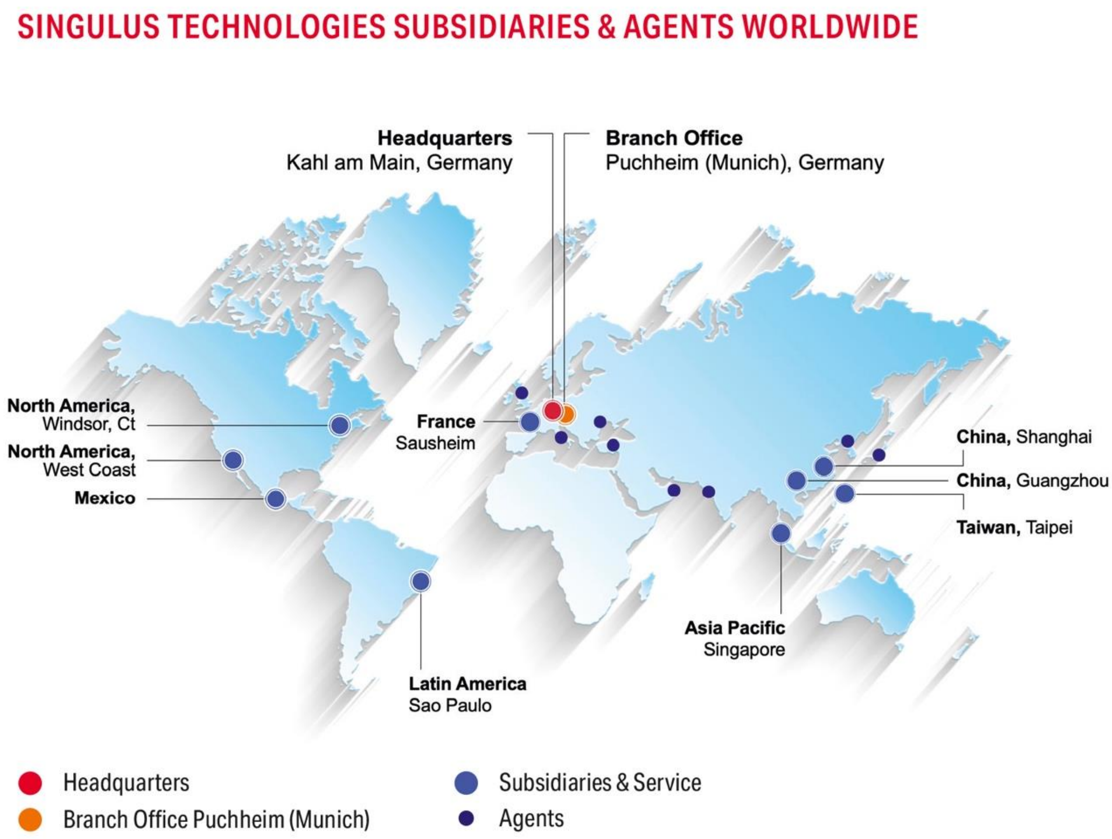
The Life Science segment includes product solutions for medical technology, decorative coatings and the work area data storage. In the field of medical technology, the Company offers vacuum coating systems for surface finishing as well as various wet-chemical cleaning systems for medical applications and the consumer goods sector. For the consumer goods segment the productions lines DECOLINE II and the inline vacuum cathode sputtering machines POLYCOATER have been developed. In addition, SINGULUS TECHNOLOGIES markets the production machine MEDLINE, which is used for medical technology applications such as the production of contact lenses. In the area data storage the activities are mainly focused on the replacement part and service activities.

Semiconductor Segment

In the Semiconductor segment, SINGULUS TECHNOLOGIES is active as a manufacturer of advanced vacuum coating systems for MRAM, thin-film heads, sensors, inductors and other semiconductor applications and is involved as a partner in the development and production of the various components. The machine platform TIMARIS has a modular built and can be equipped with various processing and ancillary modules for various applications.

Corporate Structure

The Group's management as well as departments Assembly, Research & Development, Procurement and Marketing & Sales as well as the central functions of the Company are concentrated at the Company's headquarter in Kahl am Main.. Here, the machines and systems for all segments are built. For wet-chemical processes, a competence center for wet chemistry with mechanical and electrical design, development and process engineering functions was established at the Puchheim site.

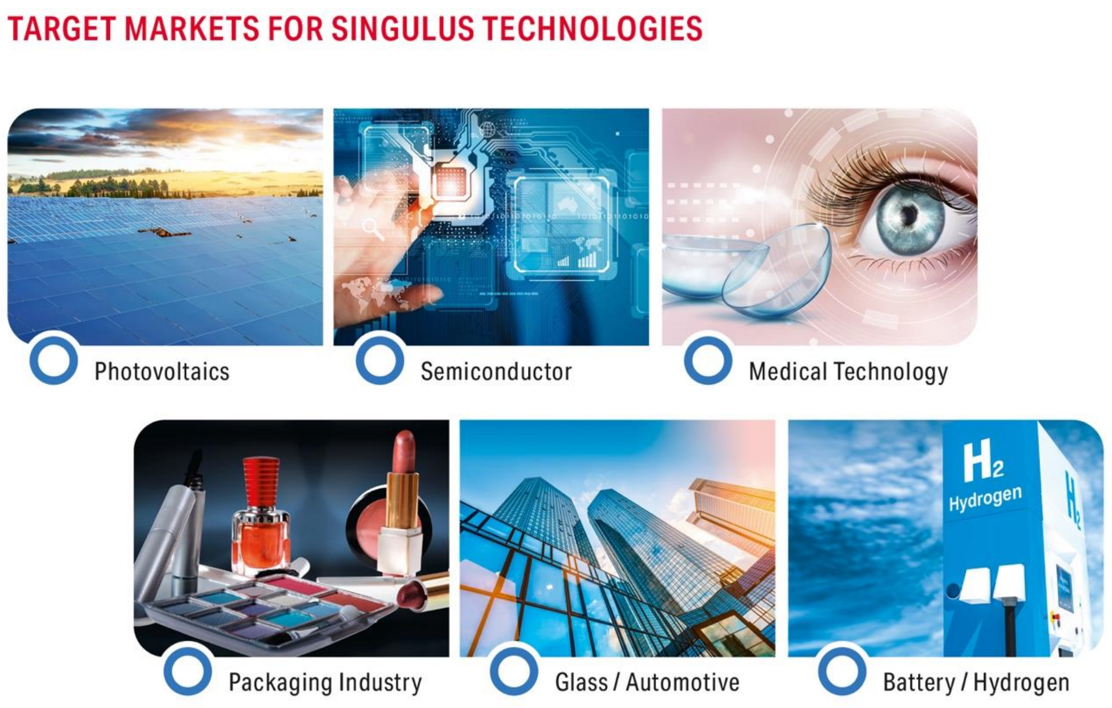


The Company's operations involving equipment and machines are supplemented by global replacement part and service activities. The respective sales and expenses are attributed to their relevant segments. SINGULUS TECHNOLOGIES has a marketing & sales and service network in all important regions worldwide and provides consulting and service activities globally. Independent subsidiaries in key regions are supported by a network of representatives.

Goals and Strategy

Tapping into markets with promising growth potential

SINGULUS TECHNOLOGIES focuses on markets in which the systems enable a unique positioning compared to competitors and create added value for customers. The goal is to open markets with high growth potential. To expand its portfolio of machines and systems, the Company relies on both internal developments and funded partnerships with customers and research institutions. In 2022, SINGULUS TECHNOLOGIES expanded its spectrum of coating technology to the area of hydrogen in addition to the continuous further developments in the segments Solar and Life Science.



Solar Segment

Focus on new cell concepts - continued importance of thin-film solar technology for positive business development

SINGULUS TECHNOLOGIES continuously develops, tests and optimizes its system concepts for use in the production of new solar cells such as HJT, TOPCon and IBC passivated contacts and tandem cells in order to successfully bring them into industrial mass production. SINGULUS TECHNOLOGIES' extensive portfolio includes machines and systems for:

- PVD vacuum thin-film coating (sputtering and deposition)
- CVD vacuum thin-film coating (PECVD)
- Edge passivation of cells with plasma technology
- Wet-chemical processes
- Specific thermal processes for the optimization of coating characteristics
- A combination of vacuum, wet-chemical and thermal process technologies for the manufacturing of tandem solar cells

Despite the focus on new cells concepts, thin-film solar technology remains of key importance for the favorable course of business of the Company. In cooperation with the key customer China National Building Materials (CNBM), SINGULUS TECHNOLOGIES continues to work on the introduction of a new generation of CISARIS selenization systems for the use of CIGS solar technology. According to initial results, the new generation of systems leads to a significant increase in performance and offers considerable cost advantages. The first machine of the CISARIS X3 type will be delivered in the first half of 2024. In addition, SINGULUS TECHNOLOGIES also offers machines for thin-film solar cells following the CdTe process. First coating machines were already delivered, a new machine operating under the principle of close-space sublimation (CSS) technology, will also be delivered in 2024.

Furthermore, SINGULUS TECHNOLOGIES works on the development of new machine concepts for a new generation of solar cells - so-called tandem technology with perovskite materials. Here, several technologies are combined. This results in improved cell efficiency.

Life Science Segment

Innovative use of existing core competencies

The medical technology sector is one of the most important growth markets in the long-term according to the Company's assessment. Therefore, SINGULUS TECHNOLOGIES works actively on the further development of wet-chemical processing machines for the cleaning and coating of contact lenses.

In addition, SINGULUS TECHNOLOGIES is observing a growing interest in environmentally friendly and cost-effective solutions for surface finishing in the automotive, consumer goods and packaging industries. Besides the existing coating solutions, the Company offers complete coating units for this market.

For use in hydrogen technology, SINGULUS TECHNOLOGIES is working on the development and optimization of the coating of metallic bipolar plates for use in fuel cells and electrolyzers in the near future, among other things.

In the work area Data Storage, the company will mainly target its activities in the coming years on the global replacement part and service activities for the extensively installed machine base. In this way, SINGULUS TECHNOLOGIES wants to ensure support for its customers and guarantee optimum utilization of the existing systems.

Semiconductor Segment

Production equipment for new applications in the focus

SINGULUS TECHNOLOGIES continues to focus on the development of production systems for various applications in semiconductor technology, sensor technology and magnetic coatings. So far, applications such as MRAM or thin-film heads had been the focal activities. SINGULUS TECHNOLOGIES was able to establish itself as market leader for applications of magnetic TMR/GMR sensors and has supplied several leading sensor manufacturers with machines.

Both the sensors and the inductors are important components in the semiconductor technology and play a vital role in many electronic systems. The sensors produced with the Company's own machines can measure currents and today such sensors are installed in almost every electric car, every cell phone, all solar power inverters and all charging stations for electric cars.

In the Semiconductor segment, SINGULUS TECHNOLOGIES has succeeded in opening up a new, interesting application with a new machine configuration and selling a first machine to a large international company in the fiscal year 2023.

These are so-called micro-LEDs (Light Emitting Diodes). Micro-LEDs are tiny, self-illuminating semiconductor components that emit light when an electric current flows through them. In contrast to conventional LEDs, micro-LEDs are significantly smaller, often in the micrometer range, which makes them particularly interesting for applications with high pixel density in displays and lighting.

System for the Company’s management

Reportable business segments are defined for the internal management of the Company. This segmentation enables management to monitor the Group's performance on the basis of key financial figures. The main key figures used for Group management are sales and earnings before interest and taxes (EBIT) for each segment. These key figures serve as the basis for allocating resources and determining profitability.

The financing and liquidity of the Company are monitored and managed on a Group level. In addition to the already mentioned key performance measures pursuant to IFRS, the sales and earnings before taxes (net profit / loss less other taxes and expenses from income and capital gains taxes) pursuant to commercial law are used as the main management indicators.

By using these key performance indicators, the Company can assess its financial performance, make strategic decisions and ensure that financial targets are achieved.

Essential features of the internal monitoring system and the risk management system of the SINGULUS TECHNOLOGIES AG Group with respect to accounting processes

Within the SINGULUS TECHNOLOGIES Group the internal control and risk management system (ICS and RMS) is viewed as a comprehensive system. It includes the principles, procedures and measures introduced by the Company's management with the aim of ensuring the organizational implementation of management decisions.

Specifically, the internal control system includes:

- Securing the efficacy and efficiency of business operations
- Ensuring proper and reliable internal and external accounting
- The compliance with regulations relevant for the Company

The risk management system comprises all organizational regulations and measures to identify and manage the risks identified in the Company's business activities. With respect to the accounting process and the consolidated accounting process, the SINGULUS TECHNOLOGIES Group has implemented specific structures and processes.

Overall responsibility for the internal control system in the accounting process and Group accounting process lies with the Executive Board. All companies included in the consolidated financial statements are integrated via a clearly defined management and reporting structure. Features of the internal control and risk management system that have a significant influence on the consolidated financial statements and the overall statement of the consolidated financial statements, including the Group management report, are considered important in the accounting and Group accounting process.

This specifically includes:

- Identification of significant risk areas and controls that influence the Group-wide accounting process
- Monitoring the Group-wide accounting process and its results at Executive Board level
- Preventive control measures in the finance and accounting of the Group and the consolidated subsidiaries

In addition, the insights gained from the ongoing reporting process influence the continuous further development of the internal monitoring system. In this context, the status of the internal control system was reviewed in the current fiscal year in accordance with IDW PS 982 and identified improvements were implemented.

Internal control system in the functional areas

Disclosures not included in the management report (unaudited)

SINGULUS TECHNOLOGIES' internal control system covers the areas of finance, purchasing, sales, human resources (HR) and IT as part of the functional alignment of the Group-wide risk landscape.

The Group-wide risk landscape is supplemented and regularly reviewed for the respective areas as part of a risk analysis. Relevant risks and controls are identified, assigned to the respective functional areas and recorded in a comprehensive risk control matrix (RCM), which is used within the company for further documentation of the controls.

A key component of SINGULUS TECHNOLOGIES' monitoring systems is the Compliance Management System (CMS). The CMS was established with the aim of creating rules, standards and processes for acting in accordance with the law and guidelines as well as voluntary commitments. It serves to protect the Company from financial risks and reputational damage, to minimize the personal liability risks of executive bodies, managers and other employees and to avoid competitive disadvantages.

Compliance management at SINGULUS TECHNOLOGIES is based on a value-oriented code of ethics, which stipulates a uniform Group-wide commitment to ethical, responsible and legally compliant behavior in business life. The SINGULUS TECHNOLOGIES Compliance Officer is independent in his function and reports directly to the Chief Financial Officer. He monitors the basic principles set out in the Code of Ethics. He is available to all employees as a point of contact. Our managers act as role models and should set a good example in order to promote compliance. Through targeted communication and regular training, SINGULUS TECHNOLOGIES helps its employees and business partners to understand and adhere to the compliance guidelines and rules.

At SINGULUS TECHNOLOGIES, compliance risks are regularly and systematically identified and evaluated across all areas. The identified risks are assessed and analyzed according to qualitative criteria and supplemented by further risk mitigation measures if necessary.

Our compliance program includes the preventive elements of guidelines, training and business partner checks. In addition, guidelines for action help to ensure the business integrity of SINGULUS TECHNOLOGIES.

Statement on the appropriateness and effectiveness of the RMS and ICS

Disclosures not included in the management report (unaudited)

Based on the regular reporting on the RMS and ICS, the Executive Board is not aware of any facts that indicate that the RMS and ICS are not designed appropriately and effectively for the risk situation of SINGULUS TECHNOLOGIES.

However, it should be noted that an ICS, regardless of its design, does not provide absolute certainty that material misstatements in the financial reporting will be avoided or detected.

Research, Development and Engineering

One focus of the Company's own research and development work is on the further development of processes and system technology for the production of crystalline high-performance solar cells. In close cooperation with renowned institutes, processes for high-performance cell concepts such as HJT, IBC, TOPCon solar cells and tandem solar cells are optimized.

This is done in close cooperation with the Fraunhofer Institute for Solar Energy Systems ("Fraunhofer ISE"), among others, which is significantly involved in the development of innovative processes and layer systems for highly efficient solar cells. For applications in CIGS thin-film technology, we also worked with our key customer CNBM on the use of perovskite tandem technology.

The research and development department has developed advanced linear large plasma sources based on ICP and CCP technology. These technologies are used in PECVD coating systems to improve processes for crystalline silicon solar cells with the highest efficiencies. Particular attention is paid to cells with passivated contacts such as TOPCon, POLO and HJT.

With the new GENERIS PET vacuum coating system developed in 2023, SINGULUS TECHNOLOGIES offers a new process system for passivating the cut edges of solar cells.

It was developed to improve the efficiency of processing half, multiple and shingle cells. Edge passivation aims to improve efficiency by minimizing the recombination losses at the cutting edges caused by laser cutting. The GENERIS PET coating system enables a significant increase in efficiency compared to unpassivated, cut cells. As an inline solution which, depending on the configuration, can achieve a half-cell throughput of several GW per year, for example, the system is suitable for various cell and cut formats and can be integrated into existing cell and module lines.

In the field of thin-film solar technology, the Company focuses on the development and construction of prototypes for the next generation of production systems. Contracts have already been signed for the construction of CISARIS systems for CIGS solar technology and CSS systems for CdTe thin-film solar technology. These systems were built in the fiscal year 2023 and are scheduled for delivery in 2024. Together with our partner CNBM, we are pursuing the goal of further reducing production costs, improving cell performance and increasing production output.

In the Life Science segment, SINGULUS TECHNOLOGIES continued to focus on optimizing existing system concepts and developing new customer-specific system variants for the production of contact lenses in 2023.

In the field of decorative coatings, the Company focused on testing and optimizing the coating of numerous new 3D components for the cosmetics and consumer goods market. Among other things, new processes based on environmentally friendly and recyclable coatings were developed. In addition to coating plastic components, it is now also possible to coat glass and metal. For the cosmetics industry in particular, the high flexibility of the systems opens up the possibility of finishing plastic and glass products in various sizes and colors. Environmentally friendly, water-based UV lacquers are used for the additional lacquering step.

In our developments in the field of hydrogen, SINGULUS TECHNOLOGIES is working on layers and layer systems for the coating of bipolar plates for fuel cells and electrolyzers. The aim is to develop suitable coatings that prevent corrosion, have low resistance to electrical currents, are stable over the long term and are cost-effective. The coating machines used for this purpose are systems that we have already developed for the solar sector and which coat large throughput quantities cost-effectively and with high quality in these applications.

The Company is already working closely with various large national and international companies in this area.

In the Semiconductor segment, SINGULUS TECHNOLOGIES tested new applications for its TIMARIS production system and provided samples for customers. The new TIMARIS STM system opens up a new, interesting application. These are so-called micro-LEDs (Light Emitting Diodes), which makes them particularly interesting for applications with high pixel density in displays and lighting.

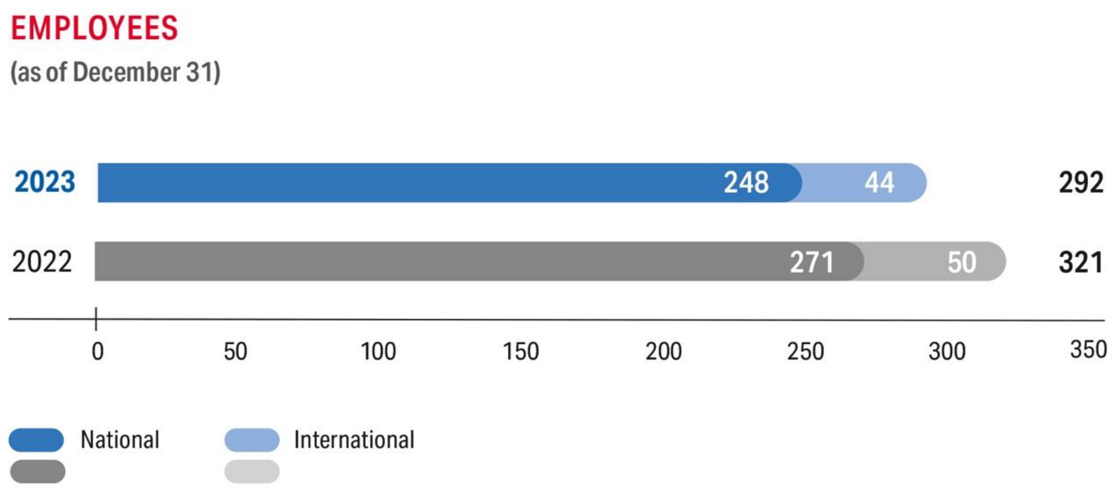
Ongoing investment in research and development is aimed at offering customers state-of-the-art technologies and optimized production processes. SINGULUS TECHNOLOGIES strives to drive innovative solutions in the Life Science and Semiconductor segments and to further consolidate our position as a leading company in these sectors.

The capitalization ratio (development expenses in relation to additions to capitalized development costs) in the fiscal year 2023 was 12.2% (previous year: 13.0%). The scheduled depreciation on capitalized development expenses amounted to € 1.2 million (previous year: € 1.5 million). The non-capitalized development expenses in the Group amounted to € 10.7 million in 2023 (previous year: € 10.2 million).

In the business year 2023, on average there were 98 full-time employees at SINGULUS TECHNOLOGIES employed in the divisions Research, Development and Construction (previous year: 94 employees).

Headcount

Due to the closure of the Fürstenfeldbruck site in the business year 2022, the number of employees declined in the business year 2023. As of December 31, 2023, there were 292 full-time employees (previous year: 321 employees) within the SINGULUS TECHNOLOGIES Group. At the end of the year, 248 employees were employed in Germany (previous year: 271 employees). Furthermore, SINGULUS TECHNOLOGIES was able to reduce employee fluctuation.



Economic Report

Overall Economic Conditions

In their publications, the International Monetary Fund (IMF) and the Organization for Economic Cooperation and Development (OECD) confirm that the global economy is continuing to slow down, with inflation falling from last year's multi-year high. Specifically, the IMF (as at November 2023) expects global growth to fall from 3.5% in 2022 to 3.0% in 2023. The OECD expects global growth of 2.9% for 2023. The IMF expects inflation to reach 6.9% in 2023.

Sector-specific Conditions

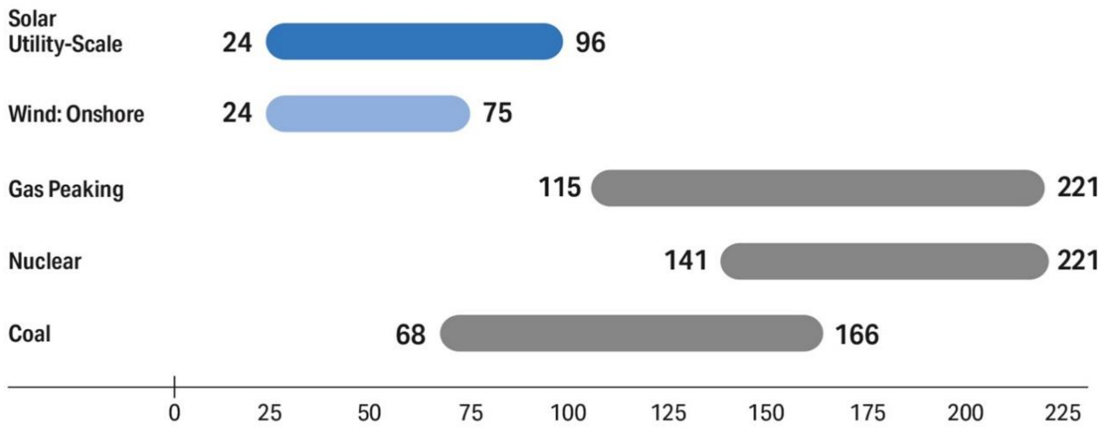
Solar Segment

The cost-efficient generation of energy with wind and solar energy offers the basis for a faster achievement of the climate targets

The importance of solar energy for the development of a secure and sustainable energy system is generally recognized. The energy scenarios developed by the European Union as part of its climate targets for 2050 include photovoltaic technology as a key component. According to the latest analysis by Lazard in April 2023, industrial-scale solar and wind power plants have the lowest levelized cost of energy of all energy sources. Compared to nuclear power, gas and coal, renewable energies are much more economically attractive.

LEVELIZED COST OF ENERGY COMPARISON – UNSUBSIDIZED ANALYSIS

($/MWH)

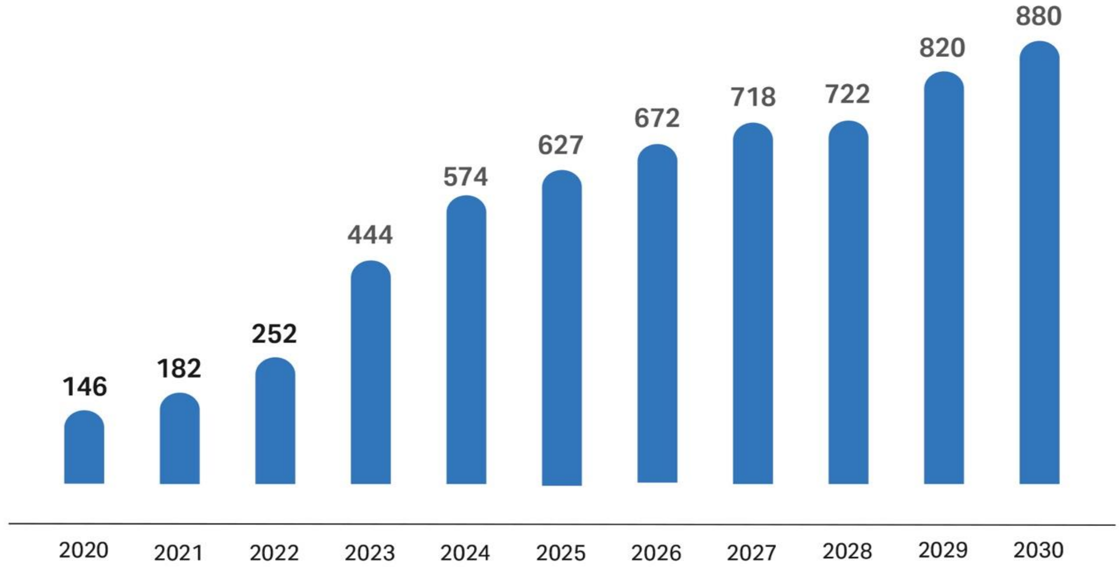


Unsubsidized levelized cost of alternative electricity compared with conventional energy sources
Source: Lazard's Levelized Cost of Energy(LCOE) Plus, April 2023

The international market analysis company BloombergNEF published its updated outlook for the photovoltaic market at the end of February 2024 and forecasts that 444 gigawatts of new photovoltaic systems will be installed in 2023. This represents significant growth compared to the 252 gigawatts in 2022. For the year 2024, 574 GW are expected - in 2025 it should be 627 GW.

GLOBAL PV INSTALLATION FORECAST

(GW)



Source: Bloomberg NEF, Q4-2023

The European Union and Germany have long been striving to rebuild the solar industry. The European market is now literally flooded with inexpensive solar modules, with prices sometimes below the calculated production costs for solar modules in Europe. However, it will take several years of preparation to establish a viable solar industry that covers the entire value chain from silicon and solar wafers to solar cells and solar modules on an industrial scale of at least 20 gigawatts.

SINGULUS TECHNOLOGIES' position in the solar market

The Chinese state-owned company CNBM is the largest shareholder with a share of 16.75% and an important customer of SINGULUS TECHNOLOGIES. CNBM plans to further expand its capacities for thin-film solar modules, both for CIGS and CdTe technologies. SINGULUS TECHNOLOGIES has a leading market position in the field of production systems for thin-film solar modules (CIGS & CdTe) and offers the most important production systems for the relevant process steps to increase cell efficiency. The Company believes that no competitor currently has the necessary expertise to offer the key equipment for the complex production process.

In recent years, SINGULUS TECHNOLOGIES has signed several contracts for the development and delivery of production systems for CIGS and CdTe thin-film solar modules and has already manufactured and in this context delivered various systems for three sites each for the production of CIGS and CdTe solar modules.

The Company expects demand for highly efficient crystalline cells such as HJT technology to continue to rise and is working in parallel with numerous partners on the development of new cell systems such as IBC and tandem solar.

Tandem solar technology in particular is expected to lead to a significant increase in cell capacity. SINGULUS TECHNOLOGIES is active in numerous initiatives in Europe, such as the European Solar Manufacturing Council (ESMC) and the European Solar PV Industry Alliance (ESIA) established by the European Commission. The goal of these initiatives is to mobilize support from EU member states for innovative and breakthrough PV manufacturing technologies and facilitate their implementation for commercial production. SINGULUS TECHNOLOGIES also supports the renewed initiative of the German Solar Industry Association (BSW Solar). In an open letter, BSW Solar has appealed to the German government to quickly take effective measures in conjunction with other European countries to secure and re-establish the European solar industry. These should provide the necessary investment impetus for the establishment of gigawatt solar factories that are competitive on an international scale, without creating new market barriers or trade restrictions. The German government should set a good example and incorporate a resilience component into Solar Package I this year to compensate for the industry's disadvantages compared to Chinese supplies.

Life Science Segment

SINGULUS TECHNOLOGIES develops and produces machines and systems for the manufacturing of contact lenses. The market for contact lenses is a growing sector in the medical technology industry and is expected to grow at an average annual rate of around 6% worldwide in the coming years up to 2028. More and more people are opting for contact lenses as an alternative to glasses. Contact lenses are also used for medical purposes, for example in the treatment of eye diseases or for post-operative rehabilitation. With the general market growth and the high speed of innovation with regard to new products, there are good opportunities for SINGULUS TECHNOLOGIES to remain a leader in this market in the future.

With its POLYCOATER and DECOLINE II machines, SINGULUS TECHNOLOGIES offers an advanced production method that not only enables the coating of parts, but also relies on chromium (VI)-free processes. These innovative technologies open up a wide range of possible applications in various industry branches. One of the areas of application is in the cosmetics and automotive industries.

In the work area optical Data Storage the service and replacement part activities shadows the declining trend of optical storage media. The work area of optical data storage technology will remain a niche business.

Semiconductor Segment

Production machines for the semiconductor market

The World Semiconductor Trade Statistics (WSTS) published its latest forecast for the semiconductor market in November 2023.

Following the spring forecasts with slightly improved results for the second and third quarters, WSTS has revised its forecast and expects a single-digit decline of 9.4% in the global semiconductor market in 2023. However, a robust recovery is expected for 2024, with estimated growth of 13.1% in 2024.

The updated market valuation for 2023 is now estimated at USD 520 billion, which corresponds to a decrease of 9.4% compared to the previous year 2022.

Global semiconductor manufacturing equipment sales are expected to decline by 18.6% to USD 87.4 billion in 2023, down from a record USD 107.4 billion in 2022. China, Taiwan and Korea are expected to remain the top three countries in equipment spending in 2023.

The Company is largely independent of the investment cycles of the global semiconductor market. However, within the realm of the offered semiconductor applications, the Company is in a competitive environment with international competitors.

Business Trends of the SINGULUS TECHNOLOGIES Group

Deviations from forecast for the business year 2023

In April 2023, SINGULUS TECHNOLOGIES targeted a significant increase in sales and earnings for the current business year compared with the prior year 2022. Sales were expected to come in at a range from € 140.0 million to € 150.0 million. The EBIT was scheduled to achieve a positive value in a low double-digit million range. As of January 1, 2023, SINGULUS TECHNOLOGIES had an order backlog amounting to € 84.8 million. The main driver of growth of sales and earnings should have been the Solar division on the basis of orders for COGS factories and their expansions for CNBM. Furthermore, additional orders in the Life Science segment were expected for the course of the business year, in particular for medical technology. In the Semiconductor segment, the processing of existing orders should have mainly contributed to a positive effect on sales and EBIT.

Taking into account information from key customers in the Solar segment with regards to their investment plans, the Company concluded on July 6, 2023 that there would be delays of important projects in this segment. Since these delays had an impact on the realized sales in the current business year, SINGULUS TECHNOLOGIES revised its forecast for the business year 2023. Accordingly, sales should come in a range from € 90 million to € 100 million instead of the previously forecast range of € 140 million to € 150 million. The

Company reduced its EBIT forecast from a low double-digit to a low single-digit million Euro amount.

During the course of the second half of the year, further delays of material order intake became apparent. This resulted in both a reduction of forecasts on the capital market on the basis of several analysts' estimates as well as by the company. They amounted to € 75.0 million to € 85.0 million as of November 2023.

	Forecast 2023	Adjusted forecast 2023
Consolidated sales	€ 140.0 to 150.0 million	€ 75.0 to 85.0 million
EBIT	low, double-digit million range	low, single-digit million range

Overall, in the business year 2023 the Company realized sales in the amount of € 73.2 million (previous year: € 87.9 million) and an EBIT of € -10.1 million (previous year: € 5.9 million). In the previous year, extraordinary income of € 12.1 million was recorded from the sale of the property at the Fürstenfeldbruck site, offset by one-off restructuring expenses of € 2.7 million in connection with the closure of production at the Fürstenfeldbruck site and the relocation of wet-chemical activities to Kahl am Main.

In terms of sales for the **Solar** division, a considerable increase was expected for the business year 2023 compared with the low prior year level. EBIT was still partially negative in 2021 and 2022 due to the sales shortfall but was forecast to improve significantly in 2023 and close positively in the low single-digit million range. Although the Solar segment grew slightly in 2023, it did not achieve the Company's targets. Within this segment sales amounted to € 39.0 million (previous year: € 30.0 million). The operating result (EBIT) amounted to € -8.3 million (previous year: € 0.1 million). Accordingly, the sales and EBIT targets in the core segment Solar were missed in the business year 2023.

Starting from a high level in the previous year, a significant decline in sales and a balanced result was expected in the Life Science segment for the planning year 2023 compared to the previous year. With sales of € 23.9 million (previous year: € 51.7 million) and an EBIT of € -1.5 million (previous year: € 7.9 million) the forecast targets were only achieve in terms of sales.

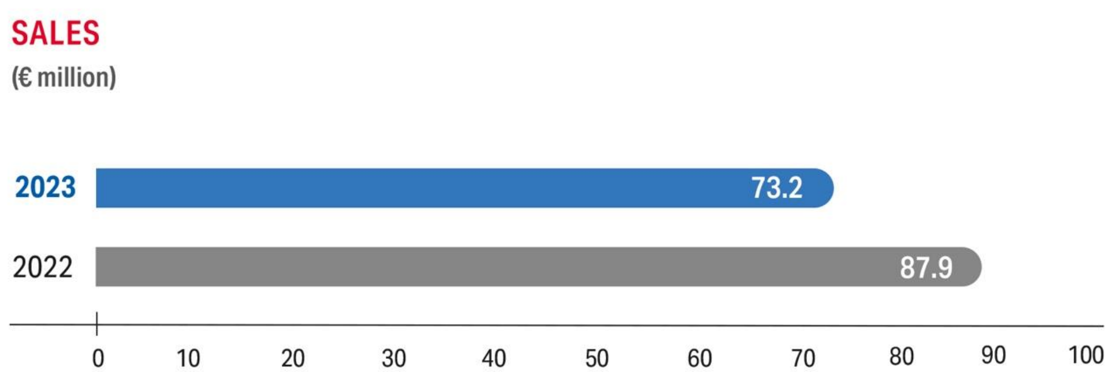
For the planning year 2023 in the **Semiconductor** segment, a significant increase in sales was expected that would exceed the level of 2022. The EBIT was forecast to be balanced compared with the previous year. In the business year 2023 the projections within this segment were achieved. Compared with the prior year, sales in the amount of € 10.3 million (previous year: € 6.2 million) increased and the resulting operating result (EBIT) improved to € -0.3 million (previous year: € -2.1 million).

Status Report

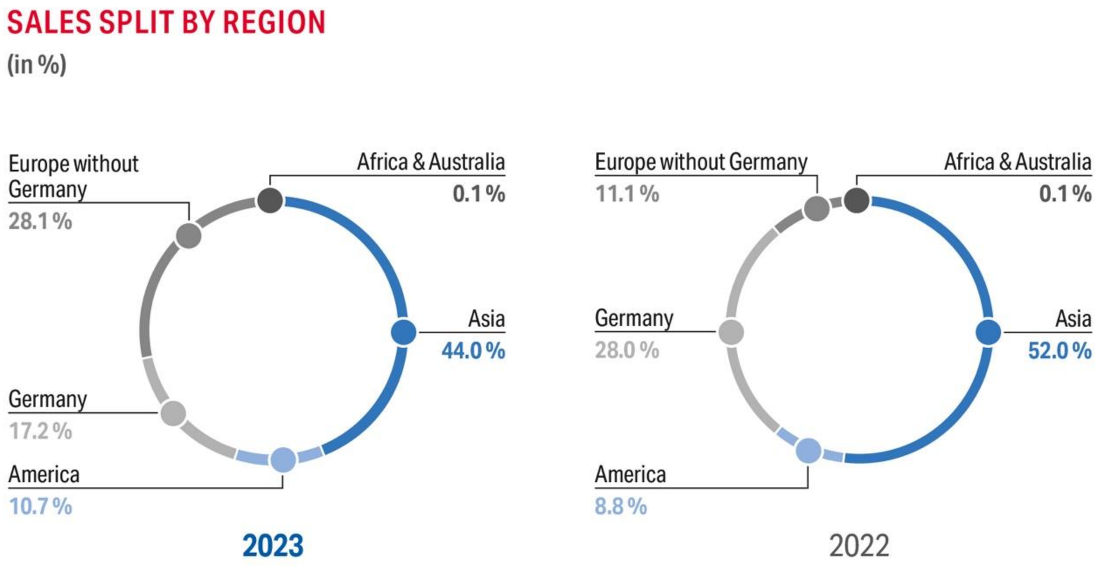
Earnings

The global economy has faced various uncertainties and challenges in recent years, making it exceptionally volatile. The outbreak of war in Ukraine, the recovery from the corona-virus pandemic and the prolonged adherence to the zero Covid policy in China were the main drivers. Overall demand was also dampened by the sharp rise in inflation rates and rising interest rates in almost all countries. All of these factors led our customers to postpone investment decisions and weighed on the Company's order situation over the course of the fiscal year 2023. Gross sales in the amount of € 73.2 million during the reporting period fell short of the sales of € 87.9 million realized in the previous year. This corresponds to a decline in sales of 16.7 % compared with the prior-year level.

Specifically, sales in the business year 2023 are split into € 39.0 million in the Solar segment (previous year: € 30.0 million), Life Science at € 23.9 million (previous year: € 51.7 million) and Semiconductor at € 10.3 million (previous year: € 6.2 million). Within the Solar and Semiconductor segments, sales increased by 30.0 % and 64.5 %, respectively, compared with the prior-year level.



For the business year 2023 the percentage regional sales breakdown was as follows: Asia 44.0% (previous year: 52.0%), Europe 45.3% (previous year: 39.1%), North and South America 10.7% (previous year: 8.8%) as well as Africa and Australia 0.1% (previous year: 0.1%).



The gross margin (calculated as the ratio of gross profit to sales (net) in percent) for the reporting year developed negatively compared to the previous year due to the decline in sales and the associated underutilization of capacity and amounted to 22.3% (previous year: 28.7%).

The operating expenses in the business year 2023 in the amount of € 26.3 million were significantly above the prior-year level (€ 19.3 million). In the previous year, extraordinary income of € 12.1 million was recorded from the sale of the property at the Fürstenfeldbruck site, offset by one-off restructuring expenses of € 2.7 million in connection with the closure of production at the Fürstenfeldbruck site and the relocation of wet-chemical activities to Kahl am Main. Specifically, research and development expenditures amounted to € 6.9 million in the year under review (previous year: € 7.1 million) in connection with strategic projects of the Company within the segment Solar and Life Science. In the year under review, the expenses for marketing & sales and customer service amounted to € 10.9 million (previous year: € 11.7 million) and € 8.9 million (previous year: € 10.5 million) for general, administrative expenses. The decrease is mainly due to lower consulting costs.

Other operating expenses amounted to € 0.6 million (previous year: € 0.5 million) and are mainly due to foreign currency effects. In the reporting year, other operating income includes primarily income from the reversal of provisions amounting to € 1.0 million (previous year: € 1.1 million).

The EBIT amounted to € -10.1 million (previous year: € 5.9 million) in the year under review.

KEY FINANCIAL FIGURES
(€ million)

	2023	2022
EBIT	-10.1	5.9
EBITDA	-7.3	9.4
Net profit/loss	-9.8	-0.1
Financial result	-1.4	-2.0
Earnings per share in €	-1.10	-0.01

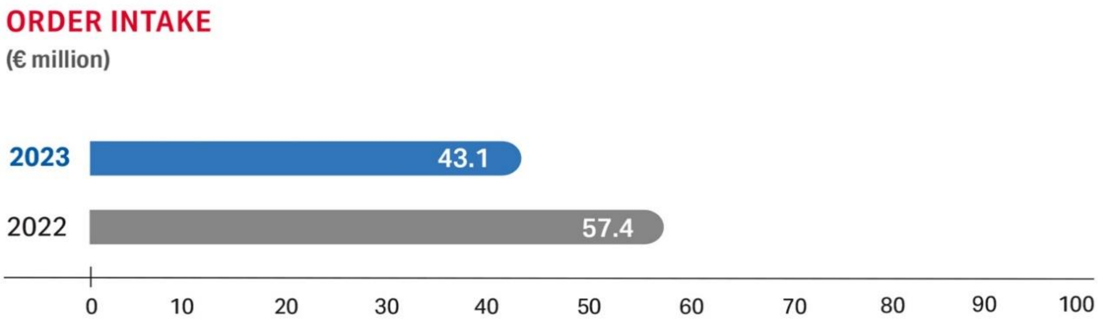
Specifically, the Solar segment recorded a negative EBIT in the amount of € -8.3 million in the year under review (previous year: € 0.1 million). The Life Science segment recorded an EBIT in the amount of € -1.5 million (previous year: € 7.9 million). In the Semiconductor segment an EBIT in the amount of € -0.3 million (previous year: € -2.1 million) was realized.

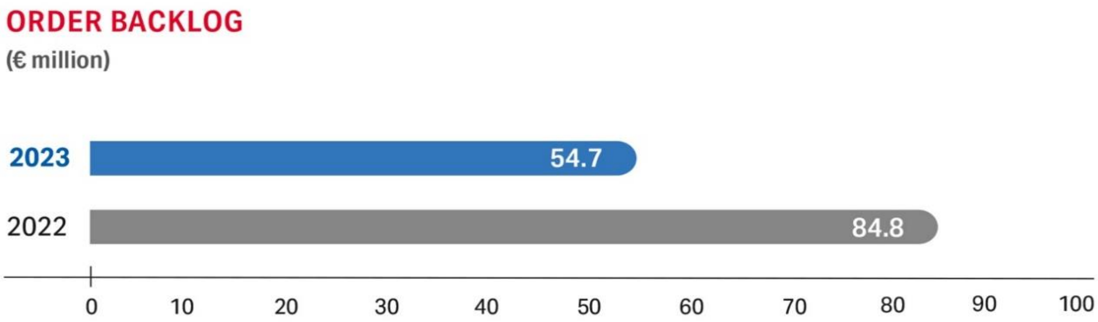
EBIT BY SEGMENTS
(€ million)

	2023	2022
Solar	-8.3	0.1
Life Science	-1.5	7.9
Semiconductor	-0.3	-2.1

The financial result in the business year 2023 amounted to € -1.4 million (previous year: € -2.0 million). This includes exclusively financing expenses. The expenses resulted mainly from the financing costs of the corporate bond and from the Company's other debt financing instruments. Tax income of € 1.7 million was recorded in the reporting year due to the valuation of deferred tax liabilities. Tax expenses of € 4.0 million were incurred in the previous year. The net result in the business year 2023 amounted to € -9.8 million (previous year: € -0.1 million).

The order intake amounted to € 43.1 million (previous year: € 57.4 million) in the year under review. The order backlog amounted to € 54.7 million as of December 31, 2023 (previous year: € 84.8 million).





Assets

ASSETS AND CAPITAL STRUCTURE
(€ million)

	2023	2022
Cash and cash equivalents	11.5	18.7
Restricted financial assets	3.2	3.8
Accounts receivable and other assets (short-term)	25.3	22.8
Inventories	12.7	14.0
Long-term assets	19.1	18.5
Total assets	**71.8**	**77.8**
Short-term liabilities	87.3	83.7
Long-term liabilities	29.1	27.7
Shareholders' equity	-44.6	-33.6
Total liabilities and shareholders' equity	**71.8**	**77.8**

The balance sheet total declined slightly compared with the prior-year level and amounted to € 71.8 million as of December 31, 2023 (previous year: € 77.8 million).

As of the end of the period under review the short-term assets amounted to € 52.7 million and are thus slightly below the prior-year level (previous year: € 59.3 million). The main reason is the decline in cash and cash equivalents to € 11.5 million (previous year: € 18.7 million). In contrast, receivables from production contracts rose from € 10.4 million in the previous year to € 17.2 million due to the increased processing of customer orders in the Solar segment. In addition, other receivables and other assets decreased from € 9.6 million in the previous year to € 5.2 million due to the decline in advance payments for suppliers.

As of the end of the year under review the long-term assets amounted to € 19.1 million (previous year: € 18.5 million) and are mainly unchanged compared with the previous year.

The short-term debt increased slightly compared with the level at the end of 2022 and amounted to € 87.3 million as of December 31, 2023 (previous year: € 83.7 million). The liabilities from production orders decreased by € 10.2 million and amounted to € 24.6 million as of the end of the business year (previous year: € 34.8 million). This was offset by liabilities from taking out loans at fair value in the amount of € 19.3 million in connection with the CNBM financing for the 2023 reporting year.

The long-term debts in the amount of € 29.1 million as of the end of the reporting period were slightly above the prior-year level (previous year: € 27.7 million). This is mainly due to the drawing of the first tranche of the super senior loan in the amount of € 2.0 million in May 2023.

The shareholders’ equity within the Group amounts to € -44.6 million as of the end of the business year due to the sustained losses, which is fully attributable to the shareholders of the parent Company (previous year: € -33.6 million). However, the Company expects a significant improvement in the shareholders' equity in the coming years.

For the trends in shareholders’ equity of the SINGULUS TECHNOLOGIES AG pursuant to HGB please refer to the information presented in the chapter “Financial Statements pursuant to HGB".

Financial Situation

Principles and goals of financial management

SINGULUS TECHNOLOGIES has a central financial management for the management of the liquidity. The goal of the financial management is securing liquidity to a sufficient extent. Excess liquidity at subsidiaries is pooled and monitored at the parent Company, if possible. Foreign exchange forwards are used to hedge foreign exchange risks. This predominantly includes foreign exchange forwards. The exclusive purpose of these derivatives is to hedge the currency risks stemming from the Group's business activities. Without the existence of a respective underlying business no derivative transactions are entered. To hedge the credit risk of accounts receivable, credit insurance or bank guarantees are used, if possible. For further information about the management of the specific financial risks please refer to Annotation 36 in the Annex of the consolidated financial statements.

Liquidity and capital management

It is the primary goal of capital management to strengthen the capital structure to safeguard the long-term financing of the Company. The general principle holds to cover the future financial requirements through the capital market at appropriate terms and conditions. In this connection, the Company is reviewing the existing options with regards to the optimum financing structure at all times. In particular, the Company is currently constantly monitoring the further development of the shareholders' equity.

Currently, the company is mainly financed via advance payments from contracted projects as well as various debt financing instruments.

As of December 31, 2023, the group of companies still had guaranteed credit lines in the amount of € 20.8 million at its disposal. Thereof, € 3.2 million were drawn as of the end of the business year. As of the balance sheet date these utilized guarantee lines were mainly secured with 100% cash deposits. The Company is currently negotiating the signing of additional draft guarantees with significantly reduced cash deposits. They are required for additional prepayments stemming from various projects. In particular in the Solar business, additional guaranteed financing agreements could become necessary subject to project-specific requirements.

For further information on the financing components, please refer to the comments on financial risks in the Risk Report.

Excess liquidity is exclusively deposited by SINGULUS TECHNOLOGIES as overnight or time deposits. Foreign currency risks from operations abroad are assessed as part of a risk analysis. Generally, part of the sales of the SINGULUS TECHNOLOGIES Group is subject to an exchange rate risk, here especially the US-Dollar (USD) currency risk. For this reason derivatives to hedge foreign exchange risks are used. However, in the year under review the share of sales in foreign currencies was immaterial. Foreign exchange risks, if they are material, are continuously reviewed in the course of the risk management system.

CASH FLOW

(€ million)

	2023	2022
Cash flow from operating activities	-26.3	-22.7
Cash flow from investing activities	-2.0	7.3
Free cash flow	-28.3	-15.4
Cash flow from financing activities	21.2	18.9
Increase/decrease in cash and cash equivalents	-7.1	3.5
Cash and cash equivalents at the beginning of the fiscal year	18.7	15.0
Impact of exchange rates translation differences	-0.1	0.2
Cash and cash equivalents at the end of the fiscal year	11.5	18.7

The operating cash flow within the group was negative at € -26.3 million in the business year 2023 (previous year: € -22.7 million). This is mainly due to the processing of customer orders for which advance payments had already been received in previous periods. The cash flow from investing activities came to € -2.0 million (previous year: € 7.3 million). Due to the one-off sale of the building in Fürstenfeldbruck, the Company received cash and cash equivalents of € 9.3 million in the previous year. Within the cash flow from investing activities in 2023, payments for investments in development expenses in the amount of € -1.5 million were recognized (previous year: € -1.5 million). The payments for investments in other intangible assets and fixed assets amounted to € -0.5 million (previous year:

€ -0.5 million). Cash flow from financing activities totaled € 20.0 million (previous year: € 18.9 million), mainly due to the lower utilization of guarantee lines and the raising of CNBM financing in the amount of € 20.0 million and the drawing of the first tranche of the super senior loan in the amount of € 2.0 million.. In total, as of December 31, 2023, the level of cash and cash equivalents increased to € 11.5 million (previous year: € 18.7 million).

At the end of the business year 2023 undrawn guaranteed credit lines amounted to € 17.5 million.

Forecast Report

Overall Economic Conditions

According to the IMF, the global economy is set to grow by 3.1% in 2024 and then by 3.2% in 2025. The forecast for the current year is therefore 0.2% higher than in October 2023.

This is due to the unexpectedly high resilience of the US and various other industrialized and developing countries as well as fiscal support in China. The risks to global growth are now balanced, and the possibility of rapid disinflation provides scope for easing the financial conditions for companies.

Economists have revised the outlook for many countries - including France and Spain - slightly downwards. For Germany, the IMF experts are now forecasting growth of just 0.5% for 2024, well below the previous estimate. In 2025, growth is then expected to increase by 1.6%.

Outlook for the Business Years 2024 and 2025

Outlook for the business year 2024

For the year 2024, SINGULUS TECHNOLOGIES forecast a significant increase in sales compared with 2023. The earnings situation of the Company is still expected to improve materially. Sales are expected to be realized in a range from € 120.0 million to € 130.0 million. The EBIT is projected to achieve a low double-digit million amount.

In order to achieve the forecast, current projects must be completed without material delay and further significant new orders must be realized in the coming months. This is particularly dependent on the solar market continuing to grow and the successful implementation of the planned large-scale projects. Furthermore, the conclusion of additional, material orders for the other segments is required. If the actual operating development will fall short of these expectations in the coming months, this would have material impacts on the financial situation of the Company, including the asset, financial and earnings situation, up to the threatening of the continuation of the company.

Both in view of achieving the expected financial results and also in terms of the future trend of the liquidity situation, the SINGULUS TECHNOLOGIES Group is to a large extent dependent on the further development of the business activities with select, large customers. A sufficient level of liquidity of the Company and of the Group in the next 24 months after the end of the 2023 financial year can only be maintained, if the planning for this period can be realized. It is an essential prerequisite for the planning that the partial payments, which are due based on the already contracted large order, will actually be made and without material delay. Moreover, it is required to win additional, substantial major orders by the end of 2025. Furthermore, the repayment of the super senior loan in the amount of EUR 4.0 million in December 2024 must be guaranteed from the financial resources generated by the company. The main shareholder Triumph guarantees that the company will be able to meet its financial obligations to the Bank of Shanghai by March 31, 2025.

We also refer to the comments on financial risks in the Risk Report in connection with the Company's financing.

Detailed information on the business outlook for 2024 and 2025 in accordance with the annual financial statements prepared in accordance with the German Commercial Code (HGB) can be found in the "Annual financial statements in accordance with HGB" section of this status report.

Outlook for the business year 2025

For 2025, the Company projects a further increase in sales compared with 2024. The EBIT is also expected to improve and amount to a low double-digit million amount.

Sector-specific Forecasts and Outlook for the Business Year 2024

Solar Segment

In terms of sales for the Solar division, a considerable increase is expected for the business year 2024 compared with the prior years. Compared with 2023 sales in this segment should almost double. EBIT was negative due to the sales shortfall in the previous year, but is expected to improve significantly in 2024 and close with a positive result in the high single-digit million range.

Life Science Segment

For the planning year 2024 in the Life Science segment, a significant increase in sales was expected that would exceed the level of 2023. Compared with the prior-year, the EBIT is expected to amount to a low single-digit million range.

Semiconductor Segment

Starting from a low level in the Semiconductor segment, we expect a doubling in sales for the business year 2024 compared with 2023. The EBIT should also come in at a low, single-digit million range.

Risks and opportunities report

The SINGULUS TECHNOLOGIES Group is confronted with internal and external risks associated with its operating segments that could jeopardize the achievement of its objectives. At the same time, it is very important to recognize and exploit opportunities in order to strengthen competitiveness. The operating segments and departments are responsible for identifying and managing risks and opportunities without offsetting them against each other. This applies both to the parent company SINGULUS TECHNOLOGIES AG and to the Group as a whole, with the parent company playing a leading role in opportunity and risk management.

Goals and principles of the risk management

Risk management helps to achieve the Company's objectives by creating transparency about the risk situation. This enables informed decision-making, the early identification of threats to the Company's financial health and the prioritization of risks and necessary measures. Risk management also ensures that risks are managed in a targeted manner, monitored and limited to acceptable levels in order to optimize costs.

Organization of the risk management

The risk environment is reviewed annually as part of corporate planning in order to identify new risks. The last risk matrix review took place in July 2023. Risks are recorded centrally at the parent company, as subsidiaries show little independence. Department heads are responsible for risk management, supported by Controlling and Finance. The risk manager coordinates risk reporting within the SINGULUS TECHNOLOGIES Group and is responsible for methods and guidelines.

The risk management at SINGULUS TECHNOLOGIES is characterized by the following principles:

- The risk management is primarily implemented by the operating segments in the course of the management duties;
- The risk management must not be limited to financial risks, but must also include all risks associated with the business activities;
- The risk management has to be an integral part of the business processes;

- The precondition for an effective risk management is the clear and unambiguous assignment of tasks and responsibilities and a systematic risk management process;
- Support and active participation on part of the management team;
- Functionality and reliability of the risk management are to be supervised continuously and adjusted, if necessary;
- The risk management system has to be documented in a suitable manner, principles and guidelines of the risk management have to be in written form and communicated to the relevant people;
- Opportunities are not a component of the risk management.

In particular, risk management should make the following contributions:

- to improve the risk awareness and risk transparency;
- to identify, suitably manage and monitor all essential risks;
- to show accumulation of risks;
- to provide reliable management information about the risk situation of the Company.

The Executive Board has the overall responsibility for the implementation of an appropriate and functioning risk management, to safeguard the timely identification and mastering of trends threatening the continuation of the Company.

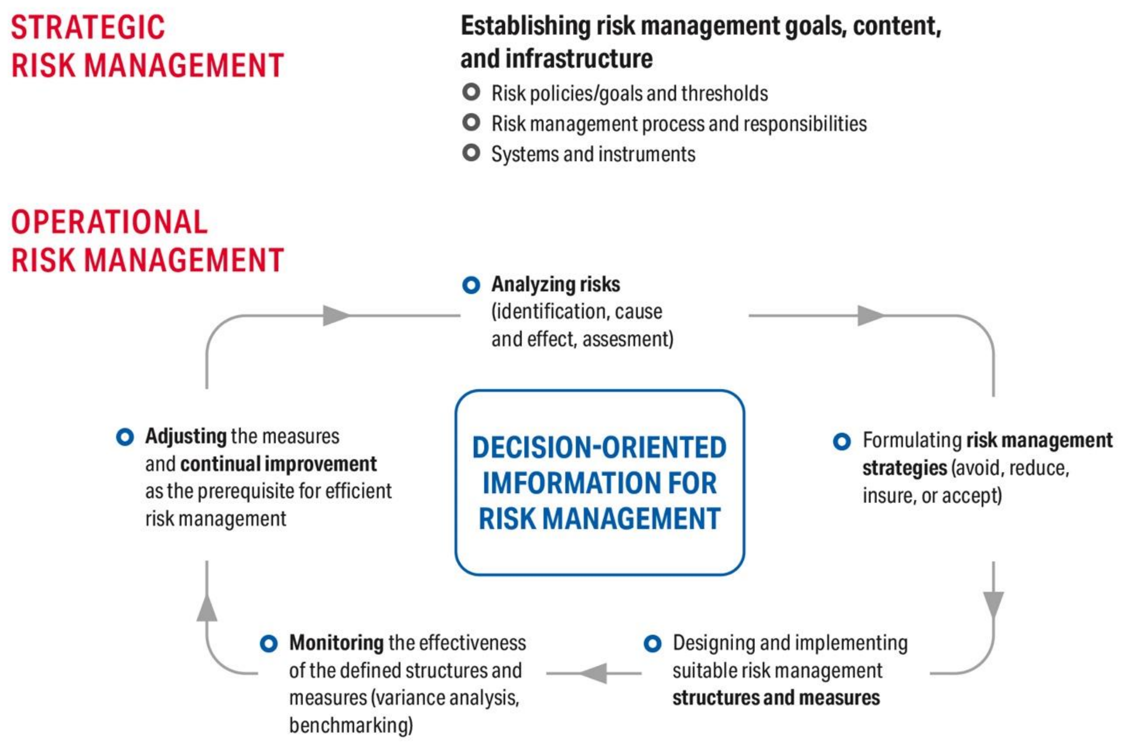
Risk management organization of the SINGULUS TECHNOLOGIES AG

The risk management process in the SINGULUS TECHNOLOGIES Group

Overall, the risk management system is a continuous process according to the business risk management process:

Level 1: Identification of goals, extent and infrastructure

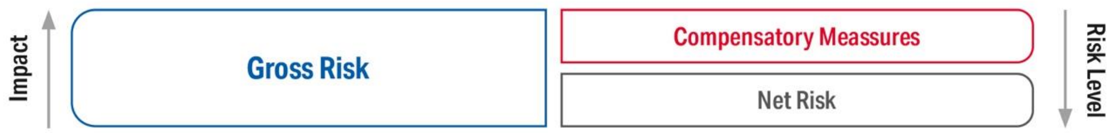
The basis of the strategic risk management process is formed by the alignment of risk policies (including targets and thresholds), the risk management processes and the definition of the required relevant systems and instruments. The original definitions are subsequently amended or modified in the course of a long-term control cycle.



Level 2: Analysis of risks

In a second step risks are initially identified and documented, afterwards analyzed from different perspectives and finally evaluated, if possible. To safeguard a complete risk inventory, a theoretical risk portfolio is applied. The analysis and update is generally performed in the course of the planning processes and for the past business year was performed in the third quarter 2023. On a quarterly basis, a risk reporting is established to document the essential risks.

The evaluation of risks is performed on an ordinal scale. The gross damage is evaluated. This assessment is renewed on a quarterly basis.



The gross damage is defined as the negative earnings impact on the Group's forecast EBIT. The probability of occurrence is the subjective assessment of the probability of the event occurring in the business year. Specifically, a low, medium or high probability is classified. The evaluation is performed on a "gross" basis, i.e. existing controls and measures are not taken into account. The relevant figures for the classification of the gross risk are defined in the following table. Here, the assumptions with regards to the specific maximum damage (based on the Group's EBIT as well as on shareholders' equity) are derived from long-term historic analysis of the financial results. In addition, the short- and medium-term liquidity risk is continuously monitored.

		Maximum damage	
Relevance	Ausprägung	from	to
1	Insignificant risks, not materially impacting EBIT	€ 0	€ 0.2 million
2	Medium risks, with a significant impact on EBIT	€ 0.2 million	€ 1.5 million
3	Significant risks, materially impacting the EBIT and significantly reducing the company value	€ 1.5 million	€ 5 million
4	Major risks resulting in a negative EBIT and materially reducing the company value	€ 5 million	€ 0 million
5	Continuation-threatening risks, which threaten the continuation of the company	> € 10 million	

Subsequently, the probability of occurrence (classification high, medium, low) is estimated for the individual risks.

Level 3: Formulating risk handling strategies

On the basis of risk handling, strategies, specific measures can be derived. The definition of these strategies is made with respect to the overall strategy and the risk preference of the Company. Basically, management has the following alternative for the handling of risks at its disposal:

- Eliminate risks

  The elimination of risks results in a complete elimination of the risk, e.g. by leaving a risky or unprofitable business.

- Reduce risks
  The goal of the reduction of risks is to lower the probability of occurrence and/or the impact on the EBIT or the Company's target to an acceptable level, e.g. by improving the early detection of risks and thus the implementation of counter-measures.

- Transfer (insure) risks
  In case of an insurance / cover the potential damage is transferred to a third party, e.g. with a respective insurance cover.

- Bear (accept) risks
  With the acceptance of risks the direct form of risk financing is carried out by SINGULUS TECHNOLOGIES, e.g. through financial cover via the addition of provisions. The development of the risks is monitored by the involved employees without introducing specific measures for the handling of risks.

Level 4: design and implementation of appropriate structures and measures

On the basis of the above-formulated risk handling strategy, subsequently the required structures and measures are derived and implemented.

Level 5: monitoring of efficiency

The implemented measures are regularly monitored and reviewed with respect to their efficiency. In addition, the legal documentation requirements are met.

Level 6: adjusting the measures and continuous improvement process

The dynamic nature of the environment demands the risk management to be understood as a continuous process. For this reason continuous adjustments of the risk management process to external and internal developments are essential. To enable this, intensive knowledge management is still necessary.

The starting point for the risk management process of SINGULUS TECHNOLOGIES is the corporate strategy, on which the definition and communication of the business goals is based.

The review of the risk management systems is performed by impartials, i.e. people who are not directly involved in the management of risks. The Supervisory Board is responsible for the review of the efficiency of the risk management. For this, the Executive Board at least annually informs the Supervisory Board about the current state of the risk management.

Risk Report

As an internationally operating Company SINGULUS TECHNOLOGIES continuously monitors latest developments and analyses their economic impacts. In particular, the current developments in our main sales market, China, are closely monitored by management.

The various uncertainties and global unrest in different parts of the world can give rise to far-reaching risks. The Russia-Ukraine war of the conflict in the Middle East could, for example, negatively impact the sales trend, production processes as well as the procurement and logistics processes due to interruption of the supply chains or shortages for components as well as raw materials and pre-products. From today’s point of view, the increases of commodities and energy prices do not appear to have a major impact on the Company. A majority of the purchase prices are already fixed for ongoing customer projects, for current customer negotiations potential increases of materials can be passed on to the contractual partners to a large extent. So far, there have not been any significant, negative impacts on the Company’s main sales markets.

In summary, as of December 31, 2023, the following relevance scores for the individually identified, material risk group as well as their probability of occurrence resulted each compared with the level recognized as of December 31, 2022:

RELEVANCE KEY FIGURES

	DECEMBER 2023		December 2022	
	Relevance*	Probability of occurence	Relevance*	Probability of occurence
Sales market risk in Solar segment	○○○○○	high	○○○○○	high
Sales market risk in Life Science segment	○○○○○	high	○○○○○	high
Project risks	○○○○○	medium	○○○○○	medium
Technology risks	○○○○	medium	○○○○	medium
Financial risks	○○○○○	high	○○○○○	high
Procurement market risks	○○○○	high	○○○○	high

* Measured using relevance indicators from 1 through 5

The following paragraphs explain the risk areas and individual risks, which are able to materially affect the assets, the financial and the earnings position of the SINGULUS TECHNOLOGIES AG and of the Group from today’s perspective, on the basis of the overall Group and which could result in a shortfall of the targets.

In addition, risks that are not known today or which are not assessed as being material, could impact the asset, financial and earnings situation of the Company.

Sales market risk

Risk description: The Company is generally subject to global economic cycles and geopolitical risks, which could impact the course of business. In particular, SINGULUS TECHNOLOGIES depends on the willingness of its international customers to invest into new production machines. Drops in demand or misjudgments in terms of the development of markets and products could have negative impacts on the Company's results.

Solar Segment

The market development for photovoltaic installations in the past couple of years relied to a large extent on the regulatory framework and global subsidies for investments in photovoltaic equipment. Even though the dependency of the competitiveness of photovoltaic installations from government subsidies is gradually decreasing due to the reduction in system costs for photovoltaic equipment, the market for these installations depends on the implementation of national energy policies and on the continuation of public support programs in the future as well. This holds mainly true for the main markets China and the US. In particular due to the enormous importance of China as the driver of growth for the solar industry in the past couple of years, the further development of the regulatory framework conditions and the public subsidy programs in this country pose a substantial risk with respect to the main business activities of the Company. In case the Chinese government repositions its energy policy and with that shift in the solar section in the course of its subsidy programs to other technologies than CIGS, CdTe, HJT or towards other new production processes or no longer implements the expansion of the production capacities to the currently announced extent, this would have material negative effects on the sales of the Company.

Furthermore, investments in the photovoltaics sector could be refrained from in general or partially or to a significantly smaller extent than expected by SINGULUS TECHNOLOGIES, since the solar technology could become less accepted in competition with other methods of electricity generation from renewable energy source in the future or other technologies could develop more favorably than photovoltaics from a technical, economic, regulatory or other reasons.

In the Solar segment the Company is currently engaged in business with a small number of large customers. This holds particularly true with respect to the current large orders as well as the future business relationships with CNBM. The liquidity and earnings situation is accordingly volatile and also dependent on large-volume projects in the short-term. Due to the current customer and project concentration, singular delays, considerable reduction or even a break-up of the respective business activities could have a material impact on the asset, financing and earnings situation. In such a case it will be improbable that the Company will be successful in compensating for the lack of business volume by new customers in the short- or medium-term.

Moreover, the competitive intensity could further increase due to mergers or cooperation of individual competitors or the market entry of new competitors. Increasing competition could result in reduced prices for production machines of the Company or even to a material loss of market share.

Impact:

Due to the high importance of this business segment, the market risk in the Solar segment is rated with a relevance score of 5 (December 31, 2022: 5). Management expects sustained high sales in the Solar segment in the next couple of years. Despite the entry into new business areas, this business segment will continue to provide the largest share of sales and earnings contributions in the current business year 2023. In view of the significant decline in orders in previous years and the continuing delays in the completion of ongoing projects the probability of occurrence was assessed as high (December 31, 2022: high) and the relevance as a threat to the Company's continued existence.

Measures: The Company is monitoring the global market trends. This includes ongoing discussions with our customers as well as with research institutes. In addition, the future projects with CNBM are reconciled. The Company is currently in talks about additional planned orders in 2024 and 2025. In addition, a reduction in the dependency on the Chinese solar market is targeted by the diversification in other markets and applications.

Life Science Segment

Besides the core segment Solar, the segment Life Science is gaining increasing importance for the further course of business in the next couple of years. The Company expects a steady expansion of the business operations within this segment.

Impact: Due to the further increasing importance of this segment for the key financial results for the Company, the sales market risk for Life Science is rated with a relevance score of 5 (December 31, 2022: 5) as well as with a high probability of occurrence (December 31, 2022: high). If the assumed order intake in this segment falls significantly short of expectations in the following business year, this would threaten the continuation of the company.

Measures: External data such as market research results but also close contacts with our customers as well as monthly reviews of actual and forecast results help to improve the evaluation of future trends at an early stage.

Semiconductor Segment

The Semiconductor segment was still considered immaterial until the fiscal year 2023 due to the low volumes.

Project risks

Risk description: According to the Company's definition project risks include orders, which concern non-standardized machines with a sales price usually exceeding € 3.0 million. Specifically, the resulting risks are the exceeding of forecast costs as well as of the project schedule, the failure of acceptance criteria as well as order cancellations and the resulting non-acceptance of machines and the resulting contractual risks.

Impact:

If risks materialize in connection with the order processing, they could have a material adverse impact on the business activities in particular in connection with the implementation of larger projects. In particular, the risk of missing the project schedule or project expenses as well as failing to meet the acceptance criteria is viewed as being material. In particular, the scheduled order processing of our major projects is of great importance for the continued existence of the Company and the Group.

If the projects fail as a whole or in parts or the planned economic success is not sufficiently realized, this could have material negative impacts on the asset, financial and earnings situation of the Company up to threatening the existence of the Company.

In summary, we assess the project risks unchanged with the relevance score of 5 (December 31, 2022: 5). The probability of occurrence is assessed as being medium (December 31, 2022: medium).

Measures: To manage the risks, already in the proposal stage project calculations, project schedules as well as project-specific risk assessments and liquidity forecasts are conducted. With a continuing monitoring of changes in the parameters alongside to the project's progress, potential project risks should be identified at an early stage and necessary measures initiated. To reduce the risk of cancellations, prepayments as well as partial payments according to project progress are routinely agreed.

Financial risks

Risk description:

The SINGULUS TECHNOLOGIES Group is exposed to financial risks in particular with respect to liquidity risks. This includes the default on receivables from customers and, in particular, the failure and delay to make advance payments for new order intake as well as partial payments in connection with the completion of major projects as well as the prolongation of various debt financing components.

In all segments additional financing agreements could become necessary subject to project-specific requirements. In particular, prepayments made by our customers are secured with guarantee pledges on a project-by-project basis. For this, according to agreements with creditors the Company has to deposit a high share of liquid funds as guarantees. This guarantee pledge is not at the Company's disposal for the financing of working capital and could result in liquidity squeezes subject to the course of the projects.

Both in view of achieving the expected financial results and also in terms of the future trend of the liquidity situation, the SINGULUS TECHNOLOGIES Group is to a large extent dependent on the further development of the business activities with select, large customers. A sufficient level of liquidity of the Company and of the Group in the next 24 months after the end of the 2023 financial year can only be maintained, if the planning for this period can be realized. It is an essential prerequisite for the planning that the partial payments, which are due based on the already contracted large order, will actually be made and without material delay. Moreover, it is required to win additional, substantial major orders by the end of 2025. Furthermore, the repayment of the super senior loan in the amount of EUR 4.0 million in December 2024 must be guaranteed from the financial resources generated by the company.

To secure liquidity, SINGULUS TECHNOLOGIES AG has had a loan of EUR 10.0 million from the Bank of Shanghai since May 2022. Repayment of the loan is guaranteed by China National Building Material Group Corporation, Beijing/China, (CNBM), the parent company of the Chinese majority shareholder Triumph Science & Technologies Co. Ltd, Beijing/China, (Triumph). The term of the agreement was initially twelve months and was extended by a further twelve months until May 9, 2024 by agreement dated January 31, 2023, subject to the occurrence of conditions precedent. The Management Board expects this loan to be extended in good time with the support of the guarantor CNBM.

Furthermore, the company received a loan of EUR 20.0 million from China Building Material International Technology Investment Co. Limited, Hong Kong/China (CBMITI), a sister company of the main shareholder Triumph, in an agreement dated February 3, 2023. The loan was disbursed in two tranches on February 6, 2023 in the amount of EUR 9.6 million and on March 27, 2023 in the amount of EUR 10.4 million. The disbursed funds have a minimum availability period of 18 months from the disbursement date, meaning that CBMITI is entitled to call in all or part of the loans granted from August 4, 2024 and September 28, 2024 respectively. Under the agreement dated October 10, 2023, an amount of € 10.0 million from this agreement was converted into a further loan from the Bank of Shanghai, which has a term of twelve months from the date of disbursement and is expected to mature in April 2025.

In order to cover the aforementioned financial liabilities due in the forecast period, the main shareholder Triumph guarantees that the company will be able to meet its financial obligations until March 31, 2025.

The Executive Board expects the partial payments to be received on schedule and the signing of further major orders with a high degree of probability. In particular, the Management Board assumes that Triumph will guarantee the aforementioned financial obligations of the company and is in a position to do so. From the Executive Board’s perspective, financing is possible within the forecast period based on current corporate planning.

These events and circumstances indicate that there are material uncertainties, which can raise doubts as to the ability of the Company and the Group to continue to operate as a going concern within the meaning of Art. 322 Para. 2 Sent. 3 HGB. Accordingly, the SINGULUS TECHNOLOGIES Group might not be able to realize its assets as well as to cover its liabilities during the regular course of its operations.

Impact: Currently, we still rate the liquidity risk unchanged with a relevance score of 5 (December 31, 2022: 5) and the credit risk with a relevance score of 3 (December 31, 2022: 3). We continue to classify the probability of occurrence of the liquidity risk as high (December 31, 2022: high). In particular, the timely receipt of contractually agreed payments as well as the assignment of additional large projects are required. Material delays in payments or credit losses within these major projects could not be compensated for. We rate the probability of occurrence of the default risk as low (December 31, 2022: low).

Measures: To safeguard the financial solvency as well as the financial flexibility of the SINGULUS TECHNOLOGIES Group at all times, a liquidity reserve in the form of cash is held. To detect liquidity risks at an early stage liquidity projections are performed on a regular basis and compared with the actual developments.

Currently, the company is mainly financed via advance payments from contracted projects as well as various debt financing instruments. Furthermore, there are currently negotiations regarding the granting of guarantee pledges with substantially reduced security deposits.

Specifically, the Company currently makes use of the following debt financing instruments:

Financing component	Nominal value	Term to maturity
Corporate bond	€ 12.0 million	July 22, 2026 (maturity)
Super senior loan according to bond terms	€ 4.0 million	December 31, 2024 (Drawing: 1st tranche in the amount of € 2.0 million in May 2023, 2nd tranche in the amount of € 2.0 million in January 2024)
Loan Bank of Shanghai	€ 10.0 million	May 9, 2024
CBMITI financing	€ 20.0 million	€ 10.0 million September 28, 2024 (right of termination upon expiry of the minimum availability period) 10.0 million: expected April 2025 (repayment date after conversion into a loan from the Bank of Shanghai depending on the drawdown by the company)

The corporate bond with a nominal volume of € 12.0 million has a term until July 22, 2026 and an interest rate of 4.5 %. The repayment amounts to 105.0 %. The increased redemption amount is also applicable in case of an early redemption.

In addition, the Company has a loan in the amount of € 4.0 million at its disposal according to the bond's terms and conditions. The loan matures on December 31, 2024. In May 2023, the company drew the first tranche and in January 2024 the second tranche each amounting to € 2.0 million.

The company also has a loan from the Bank of Shanghai in the amount of € 10.0 million, which the Management Board expects to be extended by a further twelve months in good time with the support of the guarantor CNBM.

With effect from February 3, 2023, the company signed an agreement with CBMITI for the provision of liquid funds in the amount of € 20.0 million. In return, the company granted various options with respect to rights in connection with know-how in the area of CdTe-technology. The total volume was received by the Company in two tranches in the amount of € 9.6 million in March 2023 and in the amount of € 10.4 million in early April 2023. Under an agreement dated October 10, 2023, an amount of € 10.0 million from this agreement was converted into a further loan from the Bank of Shanghai. The loan has a term of twelve months beginning with the drawing by the company, meaning that the loan is expected to be due for repayment in April 2025. The remaining € 10.0 million from the CBMITI financing has a term of at least 18 months, but the disbursed funds do not have to be repaid in full or in part until requested by the lender. Furthermore, the Company also has the option to repay the funds in part or in total at any time. They will not be eligible to be drawn again then.

To analyze default risks the portfolios of accounts receivable of the individual companies in the SINGULUS TECHNOLOGIES Group are reviewed in short time intervals. As the main instrument to hedge defaults of international customers we employ export credit insurance. Customers' creditworthiness and payment history are continually monitored and corresponding credit limits are set. In addition, on a case-by-case basis, risks are limited through credit insurances and bank guarantees, if possible.

Technology risk

Risk description: The SINGULUS TECHNOLOGIES Group is operating in competitive markets. If the further or new development of products leads to erroneous trends, this could result in substantial costs.

Impact: We are currently assessing the risk of faulty or delayed development with a relevance score of 4 (December 31, 2022: 4) and an unchanged medium probability of occurrence.

Measures: A key aspect of the review of the technology risks is the analysis of market requirements. We reduce the risk of faulty or delayed developments through the cooperation with partners, research institutes and a continuous evaluation process, which continuously reviews the efficiency, opportunities and general conditions of the development projects. An essential part of this is the monitoring of the planning of the different development projects. For all capitalized development expenses not deemed recoverable, the required write-offs are incurred. The analysis of success probabilities as well as the identification and seizing of these opportunities, which safeguards the competitiveness of the Company and increases it, is therefore an essential aspect of the strategic planning.

Procurement market risks

Risk description: The availability, unexpected price increases and inadequate quality of procured components pose a risk for SINGULUS TECHNOLOGIES. An additional risk is the build up of excessive inventories.

Impact: We rate the inventory risk with respect to the level of inventories currently unchanged to the previous year with a relevance score of 3 (December 31, 2022: 3) und still assess the probability of occurrence as being low (previous year: low).
From today’s point of view, we overall expect this to sufficiently cover the inventory risks through the recognition of balance sheet write-offs. The risk with respect to availability, quality and price increase of procurement parts is assessed with a relevance score of 4 (December 31, 2022: 4) at the end of the business year, the probability of occurrence is unchanged assessed to be high. In the short- and medium term we anticipate price increases for stainless steel and plastics from current contract negotiations and from the analysis of market expectations. Due to the global supply chain distortions, the average

backlog rate and the number of quality complaints over the course of the year were mainly above the target range.

Measures: The deliverability as well as the fulfilling of our quality requirements for supplied parts is constantly monitored. A further part of the risk management is performed through inventory management. This area includes regular frequency and reach analyses of goods and procurement parts. To avoid unexpected price increases contracts either long-term contracts are concluded with suppliers or backup suppliers are established.

Compliance risks

Risk description: As on internationally operating Company the SINGULUS TECHNOLOGIES Group is exposed to a multitude of legal, tax and regulatory risks in addition to the operating and financial risks. In particular they include risks from the fields of product liability, patent rights and corporate laws. The outcome of legal disputes as well as legal proceedings could inflict substantial harm to the reputation and the business activities of the Company or could at least incur high expenses.

In addition, the disregard of laws, regulatory requirements and referenced guidelines could have serious negative impacts, such as for example reputation damage or punitive payments, for the Company. This includes, for example, risks in connection with corruption as well as violations of export regulations.

Impact: Compliance violations could result in legal proceedings. The outcome of legal proceedings is uncertain and can result in material economic consequences. These could possibly not be covered or not to the full extent be covered by insurances and will thus have an impact on our business operations as well as the corresponding financial results.

SINGULUS TECHNOLOGIES AG is currently not aware of any material compliance violations. The impact of compliance violations is rated with a relevance score of 3 (December 31, 2022: 3), the probability of occurrence is still assessed as being low.

Measures: Legal risks are identified using a systematic approach and attended to with the help of external lawyers.

The SINGULUS TECHNOLOGIES Group has established a group-wide Code of Conduct as well as a whistleblower system to prevent possible violations of laws. This code is intended to provide employees with specific rules of conduct in various situations. An additional measure to prevent compliance violations are individual employee trainings with respect to specific issues of various legal regulations.

The Company has recently received several fines from the Federal Office of Justice in connection with the late publication of the annual financial statements for the fiscal year 2020, against which the Company has lodged an appeal with the support of external lawyers. The current review is currently being conducted by the Bonn Regional Court.

Environmental risks

As a globally operating high-tech engineering company, SINGULUS TECHNOLOGIES has a sales and service network in all relevant regions of the world. Natural disasters, epidemics and other events caused by climate change, such as floods and storms, can have a particularly negative impact on the processing of our customer projects and have a negative impact on the Company's net assets, financial position and results of operations.

In recent years, measures to contain the COVID-19 pandemic have led to economic restrictions and created uncertainty about how the global economy will develop. In our assessment, COVID-19 is currently no longer a significant risk. However, this could change if more virulent variants develop.

Opportunities Report

SINGULUS TECHNOLOGIES addresses the global market for machines and systems for the manufacturing of solar cells. In the area of thin-film solar technology (CIGS & CdTe) the focus is mainly on the further expansion plans of the Chinese company CNBM. In the medium- to long-term, CNBM plans to expand its capacities at several sites in China. The final construction of the CIGS factories in the cities of Meishan and Xuzhou was interrupted due to the COVID-19 pandemic and is scheduled for completion in 2024. As part of the development of further locations or the expansion of existing factories, the Company would receive significant sales and earnings contributions in the Solar segment.

In the USA and also in Europe, the expansion and development of production capacities for HJT solar cells is planned in various regions. For this cell technology the Company expects that next to the new production line SILEX III, also the GENERIS PVD and GENERIS PECVD will be marketable. The Company also offers the GENERIS PET vacuum coating system, a new process system for passivating the cut edges of solar cells. It was developed to improve the efficiency of processing half-, multiple- and shingle-cells. The first system was sold in 2023; the Company expects further sales in the current fiscal year 2024.

For the business year 2024 as well as for the coming years, SINGULUS TECHNOLOGIES sees great potential for the realization of new major projects in both segments: crystalline HJT and thin-film solar technology.

In the Life Science segment, in the future, in addition to machines from the wet-chemical area also vacuum coating machines and complete production lines for the treatment of surfaces are expected to increase sales. The market opportunities in the work area Decorative Coatings are further supported by the environmental friendliness and the sustainability of the process as well as the advantage of potential cost savings in the production of the components. If the economy picks up again, the Company sees an opportunity for good development.

With regard to wet-chemical cleaning systems for medical technology, SINGULUS TECHNOLOGIES focuses primarily on the growing market for contact lenses.

In addition to the established application areas for the existing machine platform, SINGULUS TECHNOLOGIES has extensively been reviewing opportunities offered by the coating in the fields of electrodes and bipolar plates. Based on the existing GENERIS PVD product platform, SINGULUS TECHNOLOGIES and its industrial partners are addressing this new market with appropriate production solutions. The mega-trend green hydrogen and its use by fuel cells will bring a great demand for innovative coatings and production equipment.

With the existing range of machines for the semiconductor technology, projects for the development of new applications are set to be addressed. The Company sees good opportunities to sell the TIMARIS platform in various configurations in this area. The goal is to develop coating systems with leading customers, which enable new applications and to develop their markets for SINGULUS TECHNOLOGIES. The use of the TIMARIS STM for the production of micro LEDs is one example of this.

Summary of risks and opportunities

The project and the sales market risks for the Solar and Life Science segments as well as the liquidity risk are the material risks within the Group from today’s point of view.

The Solar division is expected to provide the largest proportion of sales and earnings contributions in the current business year. Also against the background of establishing new business areas, the development of the solar market remains a critical criterion for the future continuation of the Company. In addition, the company anticipates a steady increase in the business activities in the Life Science and Semiconductor segments in the medium-term. In addition, a reduction in the dependency on the Chinese solar market is targeted by the diversification in other markets and applications. If the forecast sales for these segments will not materialize in the coming years, this would have negative impacts on the financial and earnings situation of SINGULUS TECHNOLOGIES.

If the risk of the order completion of current and future large projects materializes, this could have material negative impacts on the overall business operations of the company.

The Executive Board expects the partial payments to be received on schedule and the signing of further major orders with a high degree of probability. From the Executive Board’s perspective, financing on the basis of the current corporate planning within the the planning period is largely probable.

These events and circumstances indicate that there are material uncertainties, which can raise doubts as to the ability of the Company and the Group to continue to operate as a going concern within the meaning of Art. 322 Para. 2 Sent. 3 HGB. Accordingly, the SINGULUS TECHNOLOGIES Group might not be able to realize its assets as well as to cover its liabilities during the regular course of its operations.

Environment and Sustainability

Disclosures not included in the management report (unaudited)

Responsible and sustainable corporate governance plays a prominent role at SINGULUS TECHNOLOGIES AG. The Executive and Supervisory Boards have a strong preference for a long-term oriented management and monitoring of the Company. The principles of good corporate governance, also known as Corporate Governance, ensure that the Executive Board and the Supervisory Board collaborate efficiently and purposefully, respect the interests of shareholders and employees, handle risks appropriately, uphold transparency, and take responsibility for all corporate decisions.

In 2023, SINGULUS TECHNOLOGIES also made an active contribution to the promotion and dissemination of environmentally friendly energy generation through its products in the field of solar technology. The Company continuously focuses on improving its products to adhere to the principles of sustainability and further reduce energy consumption during operation. A new initiative in 2023 is the integration of energy efficiency measures throughout the entire production process to further minimize the ecological footprint.

At SINGULUS TECHNOLOGIES, sustainability also entails intensified efforts to reduce waste and promote recycling. The Company has reinforced its endeavors in this area and is developing innovative solutions to minimize resource consumption and promote the use of recycled materials.

SINGULUS TECHNOLOGIES has continued to further optimize its energy management system and adheres to proven practices:

- Energy consumption is regularly and systematically assessed.
- Energy consumption flows are continuously recorded and monitored.
- Measures for energy savings are planned and implemented.
- Planned activities to increase energy efficiency are constantly updated.
- The Executive Board publishes clear objectives regarding energy management.

To effectively implement energy policy, a designated energy management officer is responsible for monitoring and directing developments. All strategic and operational objectives, as well as necessary measures, are documented in a detailed energy management manual to ensure corporate due diligence.

In 2023, the total energy consumption at the Kahl am Main and Puchheim sites was approximately 3.5 GWh (compared to approximately 6.1 GWh for Kahl am Main and the former Fürstenfeldbruck site in the previous year), including both electricity and gas consumption. A new measure in 2023 is the increased utilization of renewable energy to further increase the self-sufficiency in clean energy. At the same time, the transition of the indoor and outdoor lighting to modern and efficient LEDs was progressed.

SINGULUS TECHNOLOGIES sees sustainability as an opportunity to position itself with innovative products that adhere to the principles of environmental consciousness and resource conservation.

The following issues were in the focus of the Company’s interests:

- Environmental awareness
- Resources conservation
- Integration of energy efficiency into the production process
- Promotion of recycling initiatives.

TAKEOVER-RELEVANT DISCLOSURES PURSUANT TO SECTIONS 289a S. 1, 315a S. 1 HGB AND EXPLANATORY REPORT

1. Composition of the subscribed capital

As of December 31, 2023 the nominal capital of the SINGULUS TECHNOLOGIES AG amounted to € 8,896,527.00, divided into 8,896,527 bearer shares with a nominal value of € 1.00 each. The nominal capital has been completely paid. There are not different types of shares; all shares are common shares. All shares entitle to the same rights and duties. Each share has one vote and the same share to profits. The rights and duties from the shares result from the legal regulations. A claim of the shareholders of physical delivery of the shares has been excluded pursuant to Art. 6.4 of the articles of incorporation of the Company. In case of a capital increase the profit sharing of new shares can be determined pursuant to Art. 6.5 of the articles of incorporation of the Company, dissenting from Art. 60 AktG.

2. Restrictions concerning the voting rights or transfer of shares

Generally there are not restrictions concerning the voting rights or the transferability of the shares of the Company. All shares of the Company are unrestricted to be traded pursuant to the legal regulation governing the bearer unit shares.

3. Direct or indirect ownership of the capital exceeding 10 % of the voting rights

Pursuant to the German Securities Trading Act (WpHG) investors are obligated to report to the Company any direct or indirect voting right thresholds gained through purchases, sales or in different manners pursuant to Art. 33 WpHG to a stock-listed Company.

As of the balance sheet date December 31, 2023, the Company was only informed that the Triumph Science and Technology Group Co., Ltd. (“Triumph”) directly or directly held more than 10% of the voting rights of the SINGULUS TECHNOLOGIES AG amounting to 16.75% of the voting rights. The voting rights held by Triumph are attributed to the following notifying parties: People’s Republic of China and China National Building Material Group Co., Ltd. (“CNBM”),

4. Shares with special rights granting controlling authority

There are no shares with special rights granting controlling authority.

5. Type of voting right monitoring if employees hold capital of the Company and do not directly exercise the monitoring rights

There are no investments of employees in the capital of the Company where the employees do not directly exercise their monitoring rights.

6. Appointment and dismissal of members of the Executive Board; changes in the articles of incorporation

The appointments and dismissals of members of the Executive Board are performed in adherence to the regulation of Art. 84, 85 AktG. Accordingly, members of the Executive Board are appointed by the Supervisory Board with a maximum term of five years. A repeated appointment or extension of the tenure is only authorized for a maximum of five years. Pursuant to Art. 7.1 of the articles of incorporation of the Company the Executive Board of the Company is comprised of at least two members. Furthermore, the Supervisory Board determines the number of members of the Executive Board. Pursuant to Art. 84 AktG and Art. 7.1 of the articles of incorporation of the Company, the Supervisory Board can appoint a Chairperson of the Executive Board as well as a Deputy Chairperson of the Executive Board. Pursuant to Art. 7.1. of the articles of incorporation, deputy members of the Executive Board can be appointed.

Pursuant to Art. 179 Para. 1 Sent. 1 AktG, the amendment of the articles of incorporation of the Company is effected by resolution of the Annual General Meeting. Pursuant to Art. 179 Para. 2 AktG, resolutions of the Annual General Meeting regarding changes of the bylaws require the capital majority representing at least three fourths of the nominal capital present at the resolution, if the articles of incorporation do no set out a different majority vote. Pursuant to Art. 15.2 of the articles of incorporation of the Company, in cases where the legal regulations require a majority of the nominal capital present during the time of the resolution and the law does not explicitly require a qualified majority, the simple majority of the nominal capital present is sufficient. Pursuant to Art. 5.2. and Art. 17.1, the Supervisory Board is authorized to resolve changes of the bylaws only affecting amendments. This also holds true for the amendment of the bylaws due to a change in the nominal capital.

7. Authorization of the Executive Board to issue and buy-back shares

7.1. Authorized capital

By resolution of the General Annual Meeting on July 19, 2023 the Executive Board was authorized to increase the nominal capital of the Company until July 18, 2028 with approval of the Supervisory Board against payment in cash and/or in kind by the issuance of up to 4,448,263 new, bearer shares with a nominal capital of € 1.00 (Authorized Capital 2023/I). Generally, the shareholders are granted subscription rights. At the same time, the existing Capital 2018/I was terminated.

The new shares can also be acquired by one or several financial institutions with the obligation to offer these shares to shareholders (indirect subscription right). However, the Executive Board is authorized, with the approval of the Supervisory Board, to completely or partially exclude shareholders' subscription rights in the following cases: (1) to the extent necessary to offset fractional amounts; (2) to the extent necessary to grant holders or creditors of option rights or convertible bonds or profit participation rights that have been or will be issued by SINGULUS TECHNOLOGIES AG or its subordinated consolidated companies, a conversion or subscription right for new shares to the extent, such as it would be due to them after exercising the option or conversion rights or after exercising stock delivery rights or after fulfilling conversion or option obligations; (3) for capital increases against contributions in kind, in particular for the acquisition of companies, parts of companies or investments in companies: (4) if the new shares are issued against cash contributions at an issue price that is not significantly lower than the stock exchange price of shares in the company within the meaning of Art. 186 Para. 3 Sent. 4 AktG and the proportionate amount of the shares issued according to Art. 186 Para. 3 Sent. 4 AktG with exclusion of subscription rights in the company's share capital of the Company's share capital does not exceed ten out of a hundred (10%) of the share capital at the time this authorization is entered in the Commercial Register or - if this amount is lower - at the time the authorization is exercised; (5) as far as it is necessary to avoid the obligation to publish a prospectus, that results from the issue of new shares against cash contributions, provided (i) the new shares are issued at an issue price that is not materially lower than the share price of the company within the meaning of Art. 186 Para. 3 Sent. 4 AktG, (ii) the proceeds from these new shares issued are used to redeem financial liabilities, e.g. the bond of SINGULUS TECHNOLOGIES Aktiengesellschaft with WKN A2AA5H (ISIN:

DE000A2AA5H5), and (iii) the pro rata amount of the new shares in the company's share capital issued with the exclusion of subscription rights does not exceed twenty out of a hundred (20%) of the share capital at the time this authorization is entered in the commercial register or - if this amount is lower - at the time when the authorization is exercised. (6) The two aforementioned limitations of 10% and 20%, respectively, includes the shares, which have been issued by the company during the term of the authorization under exclusion of the subscription rights pursuant or corresponding to Art. 186 Para. 3 Sent. 4 AktG in the course of a cash capital increase or which have been sold after a buyback. Shares are also to offset against the 10% or 20% limit, with respect to those based on option or convertible bonds or profit participation rights, which during the term of this authorization under the exclusion of subscription rights pursuant to Art. 221 Para. 4 Sent. 2 I conjunction with Art. 186 Para. 3 Sent. 4 AktG have been issued by the company or its subordinated consolidated companies, there is an option or conversion right, a conversions of option obligation or a stock delivery right in favor of the company.

Moreover, the Executive Board upon approval of the Supervisory Board was authorized to determine the details of the implementation of capital increases from Authorized Capital 2023/I.

7.2. Conditional capital

The nominal capital of the Company is conditionally increased by up to € 4,448,263.00 through the issuance of up to 4,448,263 bearer shares with a nominal capital of € 1.00 each (Authorized Capital 2020/I). The conditional capital increase will only be performed if the bearers of option or conversion rights or the parties obligated to convert or exercise options due to options or convertible bonds, which are issued or guaranteed pursuant to the authorization from the Annual General Meeting on May 20, 2020 under Agenda Item 5 by the SINGULUS TECHNOLOGIES AG or a Group Company of the SINGULUS TECHNOLOGIES AG in the meaning of Art. 18 AktG, which the SINGULUS TECHNOLOGIES AG directly or indirectly holds at least 90%, or if the SINGULUS TECHNOLOGIES AG exercises a right to completely or partly issue common shares of the SINGULUS TECHNOLOGIES AG instead of the payment of the amount due. The conditional capital increase is not implemented if a cash compensation is granted or own shares or shares from authorized capital or of a different stock-listed Company are used for the payment.

7.3. Share buyback authorization

There are not authorizations for the Executive Board to buy back shares of the Company.

8. Material agreements of the Company subject to a change-in-control due to a takeover offer and resulting effects

Pursuant to the terms and conditions of the corporate bond issued by the SINGULUS TECHNOLOGIES AG in July 2016 with a total nominal value of € 12,000,000.00, in the case of a change in control, bondholders are entitled to terminate their bonds and request the immediate repayment or, subject to the Company's discretion, to request the purchase by the Company or a third party at a price of € 105.00 per bond in addition to accrued interest.

The bondholders have to exercise the put-option within a period of time ("put exercise period") of 30 days after the notification about the change in control was published. However, an exercise of the put only becomes effective, if, within the put exercise period, the Company receives put exercise declarations from bondholders with an overall amount of at least 25 % of the total nominal capital of at that time still outstanding bonds. A change in control is present if the following event take place: (i) the Company is notified that a party or cooperating parties in the meaning of Art. 2 Para 5 German Securities Acquisition and Takeover Act (WpÜG) is or are the legal or economic owner(s) (directly or indirectly) of more than 30 % of the voting rights of the Company; or (ii) the merger of the Company with a party or to a third party or the merger of a third party with or to the Company, excluding in connection with legal actions, as a consequence the owner of 100% of the voting rights of the Company hold at least the majority of the voting rights of the surviving entity directly after such a merger.

9. Compensation agreement of the Company made with the members of the Executive Board or employees in case of a takeover offer

The employment contracts of the SINGULUS TECHNOLOGIES AG historically included a change of control clause. Accordingly, members of the Executive Board of the Company have an extraordinary termination right, which entitles them to terminate their employment within a period of one year after the change in control at any time with a notice period of six months. If the extraordinary termination right is exercised, the member of the Executive

Board is entitled to an extraordinary payment in the amount of the sum of (i) the last paid fixed salary for three years, (ii) the sum of the variable compensation (bonus payments), which were paid for the last three years as well as (iii) the addition to pension benefits for three years. The entitlement to a special payment only exists if the employment contract at the time of a change in control has a remaining term of more than nine months. The same holds true in case of a leave or the termination of the employment contract by the Company after a change in control.

On October 30, 2023, the Supervisory Board prolonged the employment contract for Dr.-Ing. Stefan Rinck until December 31, 2024. This contract, which came into effect on December 1, 2023, does not include any provisions in case of a change of control pursuant to the recommendations of the GCGC and the provisions of the compensation systems, which was approved by the annual general meeting on July 19, 2023. Similarly, the new employment contract with Mr. Ehret, which came into effect on January 1, 2024, does not include these provisions.

A detailed description is included in the compensation report 2023, which is available on SINGULUS TECHNOLOGIES AG’s website.

Financial Accounts pursuant to HGB

The consumption of more than half of the nominal capital pursuant to HGB was incurred in the business year 2017 and was reported on September 21, 2017. The extraordinary shareholders' meeting was convened on November 29, 2017. In the course of the extraordinary general meeting on October 29, 2021 and well as during the ordinary general meeting on July 19, 2023, pursuant to Art. 92 Para. 1 AktG the Executive Board again reported on the loss of the nominal capital pursuant to HGB of the parent Company. The background to the depletion of shareholders' equity was presented, which was mainly due to the timing of revenue recognition pursuant to HGB and IFRS and the operating losses resulting from the underutilization of the organization in recent years. As of December 31, 2023 the losses not covered by shareholders' equity amounted to € -115.5 million (previous year: € -115.6 million).

The development of the shareholders' equity pursuant to HGB is mainly dependent on the remaining acceptance of systems at the Chinese CIGS factories as well as the completion and acceptance of additional large-scale projects. In addition, in the long-term, the planned development of further future major projects in the coming years is required. The delays in the commissioning of the first two CIGS factory of the customer CNBM as well as the postponement of additional, significant projects in the past business years materially contributed to the fact that a recovery in shareholders' equity has not yet been achieved. However, the Executive Board expects the shareholders' equity to return to a positive balance in the long-term. Moreover, the Executive Board is currently reviewing additional measures to strengthen the shareholders' equity.

For the risks and measures with regards to the continuation of the Company, please refer to the information in the Risk Report.

ASSET, FINANCIAL AND EARNINGS OF THE SINGULUS TECHNOLOGIES AG FINANCIAL ACCOUNTS PURSUANT TO HGB

(€ million)

	2023	2022
Sales	76.2	47.0
Total output	59.3	67.7
Cost of goods sold	-33.0	-45.9
Personnel expenses	-24.4	-30.6
Balance of operating income and expenses	15.5	1.0
Net income/loss	0.1	-11.8
Fixed assets	12.0	12.7
Current assets (excluding bank deposits)	6.2	5.2
Bank deposit thereof restricted	10.9 3.2	16.7 3.8
Loss exceeding shareholders' equity	-115.5	-115.6
Provisions	29.0	26.6
Bonds	12.6	12.6
Other liabilities	103.4	111.7

In the following, the effects with a material impact on the assets, liabilities, financial situation and the earnings in the previous business year are discussed.

Overall, the company achieved sales in the amount of € 76.2 million in the year under review (previous year: € 47.0 million). Sales in the Solar segment amounted to € 21.0 million compared with € 17.0 million in the previous year. In the Life Science division sales at € 42.5 million exceeded the prior-year level (previous year: € 28.3 million). Within the Semiconductor division sales amounted to € 12.7 million (previous year: € 1.7 million).

In contrast, the total output (sales plus changes in inventory and own work capitalized) decreased to € 59.3 million (previous year: € 67.7 million).

In the other operating income amounting to € 28.2 million (previous year: €15.5 million), period-related income of € 24.1 million is primarily included, resulting from the income-effective derecognition of received advance payments due to the insolvency of a customer. The prior-year amount of € 15.5 million included the sales proceeds from the building in Fürstenfeldbruck in the amount of € 9.3 million.

The material expenses declined from € 45.9 million to € 33.0 million. The material expense ratio (material expenses / overall output) accordingly came to 55.6% (previous year: 67%). The decline in the cost of goods sold ratio is mainly due to the significant increase in sales with a contemporaneous declining change in inventories compared with the previous year.

Personnel expenses in the amount of € 24.4 million (previous year: € 30.6 million) were lower than the prior-year level. This is mainly due to the closure of the Fürstenfeldbruck site in the business year 2022 and the resulting decline in the headcount in the business year 2023. In the past business year the SINGULUS TECHNOLOGIES AG employed 280 permanent employees based on an annual average (previous year: 312).

The other operating expenses, corresponding to their composition, amount to € 12.7 million, slightly below the level of the previous year (€ 14.5 million), and mainly include legal, consulting, and audit fees (€ 3.2 million, previous year: € 3.3 million), costs for transportation and packaging (€ 1.8 million, previous year: € 1.5 million), building costs (€ 1.3 million, previous year: € 3.0 million), travel expenses (€ 0.9 million, previous year: € 0.7 million), as well as maintenance costs (€ 0.6 million, previous year: € 0.7 million). The provisions for doubtful debts from trade receivables amounted to € 0.0 million (previous year: € 0.0 million).

The income from equity investments of € 1.9 million recognized in the fiscal year (previous year: € 0.0 million) relates to income from dividends from the subsidiary SINGULUS TECHNOLOGIES ASIA Pacific Ltd, Singapore.

The interest result was negative at € 2.7 million (previous year: € -2.3 million). The interest and other expenses amounting to € 2.8 million were slightly improved compared with the prior-year level (previous year: € -2.5 million). In detail, interest expenses from affiliated companies amounted to € 0.8 million (previous year: € 0.8 million), from issued bonds € 0.8 million (previous year: € 0.8 million), and from the operating line of credit and the super senior loan € 0.5 million (previous year: € 0.1 million).

A capital increase of € 0.5 million was carried out for SINGULUS TECHNOLOGIES FRANCE S.a.r.l. Sausheim/France in the fiscal year. The resulting acquisition costs were also written down in full due to the carrying amount of the investment, which had already been written down in previous periods, resulting in write-downs on financial assets in the amount of € 0.5 million (previous year: € 0.1 million).

Overall, a net profit of € 0.1 million (previous year: € -11.8 million) resulted.

The balance sheet total of the company came to € 145.1 million as of December 31, 2023, slightly below the prior-year level (previous year: € 150.9 million).

The fixed assets accounted for 8.2 % of the balance sheet total and amounted to € 12.0 million as of the balance sheet date (previous year: € 12.7 million). The fixed assets amounted to € 4.6 million (previous year: € 5.1 million).

The prepayments received in the amount of € 164.6 million (previous year: € 216.5 million) exceeded the level of inventories (€ 111.9 million, previous year: € 131.7 million) as of the end of the year under review. The excess amount is recognized on the liability side of the balance sheet (€ 52.7 million, previous year: € 84.8 million). The prepayments received mainly result from the orders in the Solar and Semiconductor segments.

The accounts receivable with a maturity of less than twelve months amounted to € 1.8 million as of the balance sheet date and declined slightly compared with the prior year (€ 1.3 million).

Cash and cash equivalents amounted to € 10.9 million as of December 31, 2023 (previous year: € 16.7 million). Thereof, in the course of collateral management, € 3.2 million overall were transferred to blocked accounts (previous year: € 3.8 million). As of the end of the year under review, the available liquid funds amounted to € 7.7 million (previous year: € 12.9 million).

The shareholders' equity increased by € 0.1 million in the year under review. Accordingly, as of the end of the year under review the SINGULUS TECHNOLOGIES AG reports losses in the amount of € -115.5 million not covered by shareholders' equity (previous year: € -115.6 million). With regards to the assessment of the Company to the future development of the shareholders' equity pursuant to HGB please refer to the information provided at the beginning of this chapter.

Total debt amounted to € 145.1 million as of December 31, 2023 (previous year: € 150.9 million).

The provisions are slightly above the prior-year level and stood at € 29.0 million as of the balance sheet date (previous year: € 26.6 million). The other provisions amounted to € 13.6 million as of December 31, 2023 (previous year: € 11.0 million). This mainly includes provisions for guarantees (€ 7.5 million, previous year: € 0.8 million), provisions for personnel expenses (€ 3.1 million, previous year: € 6.5 million), provisions for potential fines (€ 1.0 million, previous year: € 0.5 million) as well as provisions for outstanding bills (€ 0.8 million, previous year: € 1.1 million).

The liabilities at € 116 million as of December 31, 2023 were below the prior-year level (previous year: € 124.3 million). This includes prepayments received. They were set against inventories. The excess amount is recognized on the liability side of the balance sheet (€ 52.7 million, previous year: € 84.8 million). The bond liabilities still amount to € 12.6 million. The accounts payable increased slightly from € 7.5 million in the prior year to € 8.2 million as of December 31, 2023. The balance sheet item Other liabilities from financing agreements was renamed Liabilities to banks. This still includes € 10.0 million from the working capital credit line. The liabilities from the CNBM financing in the amount of € 20.0 million and the drawing of the first tranche from the super senior loan in the amount of € 2.0 million are reported under Other liabilities.

Forecast for the SINGULUS TECHNOLOGIES AG pursuant to HGB for the business years 2024 and 2025

For the business year 2024, the Company forecasts increasing sales compared with the previous year due to the delay in planned large-scale projects into the current business year. Overall, due to upcoming final acceptances we project sales for the SINGULUS TECHNOLOGIES AG pursuant to HGB for the business year 2024 within a range from € 135.0 to 145.0 million. The earnings before taxes are expected to come in at a low, double-digit million range. Due to the planned major projects, we expect an additional increase in sales in 2025 compared with the level achieved in the business year 2024. The earnings before taxes are expected to come in at a low, double-digit million range.

Corporate Governance declaration pursuant to Art. 289f and Art. 315d HGB

The corporate governance declaration pursuant to Art. 289f and Art. 315d HGB as well as the diversity concept with respect to the composition of the management and supervisory boards of the company is included in the corporate governance report and available on the company's website under www.singulus.de/de/corporate-governance.html.

Kahl am Main, March 29, 2024

SINGULUS TECHNOLOGIES AG

The Executive Board

Dr.-Ing. Stefan Rinck

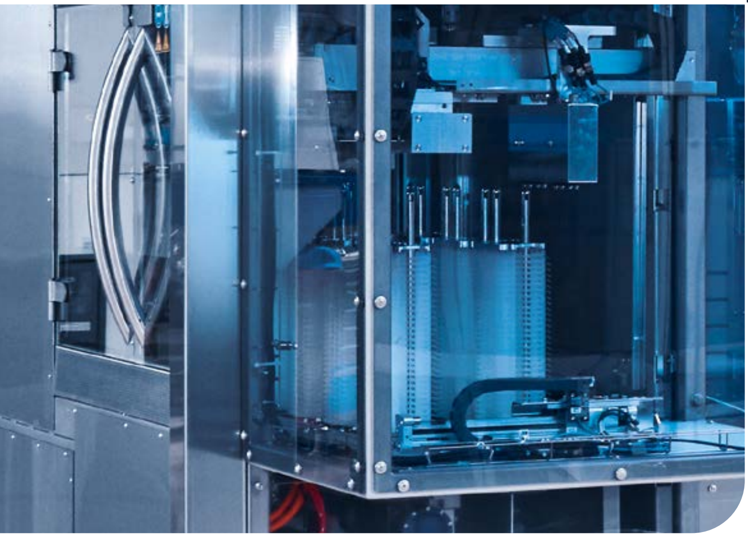
Dipl.-Oec. Markus Ehret

Declaration of the Executive Board pursuant to Art. 297 Para. 2 S. 4, Art. 315 Para. 1 S. 5 HGB

We assert to our best knowledge and belief that pursuant to the applied principles of correct consolidated reporting the consolidated financial accounts pursuant to IFRS reflect the true situation of the asset, financial and earnings situation of the SINGULUS TECHNOLOGIES Group, that the combined status report of the SINGULUS TECHNOLOGIES AG as well as of the SINGULUS TECHNOLOGIES Group depicts the course of business including the business events and the situation of the SINGULUS TECHNOLOGIES Group in a way reflecting the true situation and that the material opportunities and risks of the foreseeable development of the Group have been described.

Kahl am Main, March 29, 2024

SINGULUS TECHNOLOGIES AG
The Executive Board



MEDLINE

Cleaning and Coating Systems for Contact Lenses

SINGULUS TECHNOLOGIES supplies customized machines for the surface treatment of optical substrates made of glass, polymer or monomer components. The systems use wet chemical processes such as cleaning, etching and deposition, individually adapted to customer requirements. SINGULUS TECHNOLOGIES offers innovative wet-chemical process solutions and systems for the coating of contact lenses.

Declaration of Corporate Governance pursuant to Art 289f and 315d HGB Including Corporate Governance Report of the SINGULUS TECHNOLOGIES AG

The SINGULUS TECHNOLOGIES AG highly values proper and responsible corporate governance within the context of the guidelines of good corporate governance. The Executive Board and Supervisory Board understand this to mean responsible management and control of the company geared towards long-term success, in which environmental and social goals are given appropriate consideration alongside long-term economic goals. Corporate governance aims to safeguard a targeted and efficient cooperation between Executive Board and Supervisory Board, the adherence to the interests of the shareholders and employees, the suitable handling of risks, transparency of opportunities as well as responsibly made corporate decisions. The Executive and Supervisory Boards regard corporate governance as a process integrated into the Company's development, which is constantly progressed.

For ease of reading, the masculine form is used in this declaration when referring to persons. It is representative of persons of any gender.

The declaration to the corporate governance for the business year 2023 is made pursuant to Art. 289f and 315d HGB and is a components of the Status Report. The declaration is made in reference to the point in time of publication of the Status Report. Pursuant to Art. 317 Para.2 Sent. 6 HGB, the review of the information pursuant to Art. 289f Para. 2 and 5 HGB as well as Art. 315d HGB is limited by the auditor to the extent whether the information was provided. In accordance with Principles 22 and 23 of the German Corporate Governance Code in the version dated April 28, 2022 (the "**Code**"), the corporate governance declaration pursuant to Articles 289f and 315d HGB as part of the Group management report is the central instrument for informing shareholders about the company's corporate governance.

1. Declaration of Conformity 2023 with the German Corporate Governance Code

1. The last Declaration of Conformity was issued in May 2023. Since this date, SINGULUS TECHNOLOGIES AG (the "**Company")** has complied with the recommendations of the Government Commission on the German Corporate Governance Code in the version of the Code dated 28 April 2022 ("**GCGC 2022**") with the exception of the following deviations:

a) According to recommendation F.2, the consolidated financial statements and the group management report should be publicly accessible within 90 days of the end of the financial year. The consolidated financial statements and group management report for the 2022 financial year could not be published until 30 October 2023. Due to statutory rotation requirements, the company had to change the auditor for the annual financial statements for the 2022 financial year. The new auditor, Baker Tilly GmbH & Co KG Wirtschaftsprüfungsgesellschaft, Düsseldorf, was appointed by court order on 16 May 2023 for the 2022 financial year. Baker Tilly was only able to begin its audit work after the 2020 and 2021 consolidated financial statements had been audited and approved.

b) According to recommendation B.5, the Supervisory Board should set an age limit for members of the Exectuive Board. The Supervisory Board has not set a general age limit but decides on a case-by-case basis when making appointments. On 30 October 2023, the Supervisory Board extended Dr. Rinck's employment contract until 31 December 2024, although Dr Rinck had already reached the age limit of 65 at the time. Due to the company's difficult situation and Dr Rinck's good relationships with the company's largest customer, the Supervisory Board considered continuity in management to be crucial.

c) In accordance with recommendations D. 2, D. 3, D. 4, D. 5 GCGC, the Supervisory Board should form committees with specialized expertise. The company's Supervisory Board does not form any committees as long as there is a three-member Supervisory Board, because with a three-member Supervisory Board, the tasks of the Supervisory Board can be properly performed in plenary sessions. In this case, committees are not expected to increase efficiency, improve the handling of complex issues or enable the Supervisory Board to fulfil its duties more efficiently or better in connection with accounting, risk management or auditing issues. At the Annual General Meeting on 14 December 2023, a resolution was passed to extend the Supervisory Board to four members. A fourth member was elected to the

Supervisory Board. After the amendment to the Articles of Association and the appointment took effect, the Supervisory Board formed an Audit Committee with three members on 2 February 2024.

d) Recommendation D.10 stipulates that the Audit Committee should regularly review the quality of the audit. The company did not have an Audit Committee in the 2023 financial year. Following the expansion of the Supervisory Board to four members, the Supervisory Board formed an Audit Committee with three members on 2 February 2024.

2. With the exception of the deviation declared under section 1 b), SINGULUS TECHNOLOGIES AG will comply with the recommendations of the GCGC 2022 in the future.

Kahl am Main, February 2024

Dr.-Ing. Wolfhard Leichnitz (Chairman of the Supervisory Board)

Dr. jur. Changfeng Tu (Deputy Chairman of the Supervisory Board)

Martina Rabe (Member of the Supervisory Board)

Dr.-Ing. Stefan Rinck (Chief Executive Officer)

Dipl.-Oec. Markus Ehret (Member of the Executive Board)

2. Relevant information with regards to corporate governance

2.1 Management structure

The SINGULUS TECHNOLOGIES AG as a German corporation is subject to German Corporate Law and is thus comprised of a two-tiered management and monitoring structure consisting of Executive Board and Supervisory Board. The Executive Board manages the Company and is responsible for the Company's strategy, accounting, finances and development. It is advised and monitored by the Supervisory Board.

On the basis of the reports by the Executive Board the Supervisory Board discusses the business trends and planning, the corporate strategy and its implementation. Significant decisions by the Executive Board such as major acquisitions and financing measures are subject to the Supervisory Board’s approval according to the bylaws governing the Executive Board. It issues the audit mandate for the auditor elected at the Annual General Meeting and is informed about the audit. After its own review the Supervisory Board adopts the annual reports and the consolidated financial statements.

The Executive Board currently consists of two members, the Supervisory Board of four members. The SINGULUS TECHNOLOGIES AG is not subject to the Co-Determination Act.

2.2 Risk Management

SINGULUS TECHNOLOGIES AG considers efficient and forward-looking risk management as an important and value-adding task. Risk management is one of the core functions of entrepreneurial endeavors and is a material element for the success of our business activities.

Specifically, risk management supports the achievement of corporate goals by creating transparency about the company's risk situation as a basis for risk-conscious decisions, thus enabling potential threats to the company's net assets, financial position and results of operations to be identified and the necessary steps to be taken.

The risk management is integrated into the existing organization of the SINGULUS TECHNOLOGIES AG. It is not an independent structure. The Director Finance and Accounting is the risk manager. The respective heads of the departments, which are supported by the risk manager and the Chief Financial Officer, are responsible for the risk management organization at the SINGULUS TECHNOLOGIES AG. The Chief Financial Officer coordinates with the other members of the Executive Board all activities in connection with the risk management of the SINGULUS TECHNOLOGIES AG.

The Executive Board and the risk manager report to the Supervisory Board at least once a financial year on the status of risk management and planned improvements.

2.3 Ethics Code

Integrity characterizes the interaction of the SINGULUS TECHNOLOGIES AG with its business partners, employees, shareholders and the public. Respectful, loyal and fair interaction within the Company and with our business partners goes without saying for the SINGULUS TECHNOLOGIES AG. This fundamental statement is the basis for the self-imposed Code of Ethics of SINGULUS TECHNOLOGIES AG, which can be viewed at https://www.singulus.com/de/corporate-governance/. It includes binding internal rules, which are subject to high ethical and legal standards. The Ethics Code was adopted by the Executive and Supervisory Boards in spring 2015 and since then has been implemented group-wide in several steps. The content of the Ethics Code is disseminated to various groups of employees in regular intervals in the course of partially electronic training programs.

This Ethics Code is supported by action guidelines, which amongst others includes rules regarding the granting and acceptance of gifts, and action guidelines for whistle-blowers, which governs specifics with regards to reporting of misdemeanor and illegal, immoral or inappropriate activities within the SINGULUS TECHNOLOGIES Group.

2.4 Compliance Management

For the Executive Board and the Supervisory Board of the SINGULUS TECHNOLOGIES AG, the adherence to extensive compliance is an essential prerequisite for sustainable economic success. As part of the risk management, compliance risk matters are analyzed and managed. In this connection there are routine trainings as well as quarterly reports to the Chief Financial Officer and annually to the Supervisory Board. In addition, extraordinary events and matters are directly reported to the Chief Financial Officer.

In case of actual or assumed compliance breaches, employees can – if preferred, also anonymously - contact their superiors, the Compliance officer or the SINGULUS TECHNOLOGIES ombudsperson. There were no extraordinary events during the course of the business year 2023.

3. Composition and work processes of Executive and Supervisory Boards

3.1 Close cooperation of Executive and Supervisory Boards

Executive and Supervisory Boards work closely together for the benefit of the Company. The Executive Board reports regularly, timely and in detail to the Supervisory Board about the relevant issues of corporate planning, the strategic development as well as the course of business activities and the overall situation of the Group.

Due to the difficult financial situation, the Supervisory Board also dealt intensively with the business development of SINGULUS TECHNOLOGIES AG in the 2023 financial year. A total of 15 Supervisory Board meetings were held, most of them in the presence of the Executive Board. In addition, the Chairman of the Supervisory Board was in regular contact with the Executive Board in order to stay informed of new developments and to discuss current challenges with the Supervisory Board.

The basis of the information and monitoring activities of the Supervisory Board is the continuous reporting. Additional, written and oral reports of the Executive Board, by other employees, the auditors supplement the reporting. For important issues, the Supervisory Board also calls in external consultants to supplement the Executive Board's reporting. Furthermore, the Chairman of the Supervisory Board regularly discusses the situation and the future development of the Company during individual talks with the Executive Board and subsequently informs the other members of the Supervisory Board about these discussions. The business situation and liquidity situation are discussed internally by the Supervisory Board and at each Supervisory Board meeting, in some cases together with the Executive Board. According to the bylaws of the Executive Board, significant business decisions are subject to the approval by the Supervisory Board.

3.2 Members and work of the Executive Board

The Executive Board of the SINGULUS TECHNOLOGIES AG comprised of two members in the business year 2023. The current members of the Executive Board are Dr. Stefan Rinck and Mr. Markus Ehret. At the Supervisory Board meeting on October 30, 2023, the Supervisory Board extended the appointment of Dr. Stefan Rinck to the Executive Board until December 31, 2024 and the appointment of Mr. Markus Ehret until December 31, 2028. The Executive Board is the management body of the Company. In managing the Company the Executive Board is solely obligated to the interests of the Company and follows the goal of a sustainable increase in the enterprise value as well as the interests of the shareholders and of the employees. In addition to long-term economic goals, it also takes appropriate account of ecological and social goals.

As Chief Executive Officer Dr.-Ing. Stefan Rinck is responsible for the departments Marketing & Sales, Technology, Research & Development, Strategy and International Operations as well as divisions Production, Semiconductor and Setup Production China. Mr. Markus Ehret is responsible for the areas Finance, Controlling, Investor Relations, Human Resources, ESG and IT as well as Procurement.

3.3 Members, changes and work of the Supervisory Board

In the past business year, the Supervisory Board of SINGULUS TECHNOLOGIES AG had three members. No employee representative is a member of the Supervisory Board.

The members of the Supervisory Board in the 2023 financial year were Dr. Wolfhard Leichnitz, Dr. Silke Landwehrmann and, until July 19, 2023, Dr. Rolf Blessing. Dr. Blessing stepped down from the Supervisory Board as planned at the end of his term of office due to his age. Dr. Changfeng Tu was elected as his successor by the same Annual General Meeting. At the proposal of the Supervisory Board and Executive Board, the Annual General Meeting on December 14, 2023 resolved to expand the Supervisory Board by one seat in order to better represent the interests of the shareholders in line with the current ownership structure. The largest single shareholder, Triumph Science & Technology Group Co. Ltd, Beijing, which holds 16.75% of the share capital, was not represented on the Supervisory Board. An additional Supervisory Board member can also expand the competence profile of the Supervisory Board through their skills and expertise. At the proposal of the Supervisory Board, Mr. Denan Chu was elected to the Supervisory Board by the Annual General Meeting on December 14, 2023. The election became effective upon entry of the amendment to the Articles of Association on January 24, 2024. Mr. Denan Chu currently holds the positions of Board Secretary, General Counsel and Chief Compliance Officer at Triumph Science & Technology Group Co. Ltd (Triumph), a subsidiary of CNBM. He is also Board Member and General Manager at China National United Equipment Group Corporation.

In the Supervisory Board's rules of procedure, which are available on the company's website at **www.singulus.de/de/investor-relations/corporate-governance**, the Supervisory Board has specified in section 2.3 the expertise and experience that the Supervisory Board should cover in addition to knowledge of the business areas, the competitive situation and the company's customers as a whole.

Dr. rer. pol. Silke Landwehrmann has resigned from her office as a member of the Supervisory Board of SINGULUS TECHNOLOGIES AG for personal reasons as of January 17, 2024. During her time on the Supervisory Board, Dr. Landwehrmann shaped the company with her extraordinary expertise and her responsible personality. The Supervisory Board and the Executive Board regretfully acknowledge this step and thank her for the committed and very good cooperation in the couple of years.

The Executive Board proposed a replacement member, Ms. Martina Rabe, Dipl. Bankbetriebswirtin, to the competent local court and the court appointed her as a member of the Supervisory Board with effect from January 17, 2024 until the next Annual General Meeting. In the view of the Executive Board and Supervisory Board, Ms. Rabe's particular suitability results from her work in various positions at UniCredit Bank AG, Munich, at Commerzbank AG, Stuttgart, in recovery management and her current work at Norton Rose Fulbright LLP. Due to her experience as Chief Financial Officer at the internationally active NDT Systems & Services AG, Stutensee, Ms.

Rabe is qualified as a financial expert within the meaning of Art. 100 Para. 5 AktG. Ms. Rabe does not hold other memberships in Supervisory Boards or comparable German and international supervisory committees of business companies.

In the 2023 financial year, the members of the Supervisory Board covered the following areas:

	Business Areas / Sales Structures / Technology	International Business Experience	Finance / Capital Market / M&A	Risk Management / Compliance	Competence in Sustainability Issues
Members of the Supervisory Board					
Dr.-Ing. Wolfhard Leichnitz (Chairman)	++	++	++	+	+
Dr. Silke Landwehrmann (Vice Chairman)	0	++	++	++	+
Dr. Changfeng Tu	0	++	++	++	0

++	**Core Competence**
+	**Secondary Competence**
0	**Tertiary / no obvious Competence**

The Supervisory continued to refrain from forming auditing committees or other committees in the business year 2023 as well.

The Supervisory Board adheres to the recommendations of the Code and regularly assesses how efficiently the Supervisory performs its tasks and duties. In December 2023, the Supervisory Board conducted a self-assessment of the efficiency of its work and identified improvements to be implemented in the 2024 financial year.

For detailed information about the work of the Supervisory Board in the business year 2023 please refer to the Report of the Supervisory Board in the Annual Report 2023. There were no advisory or other services or work contracts in place between the members of the Supervisory Board and the Company in the past business year.

Dr. Leichnitz has been a member of the Supervisory Board for more than 12 years and is therefore no longer considered independent of the company in accordance with Section 12.7 of the Code. The other members of the Supervisory Board are independent within the meaning of the Code.

According to the bylaws of the Supervisory Board, the Supervisory Board members are obligated to immediately disclose to the Chairperson of the Supervisory Board potential conflicts of interest, which could for example results from an advisory or board function for customers, guarantors, creditors or other business partners of the SINGULUS TECHNOLOGIES AG. No conflicts of interests of members of the Supervisory Board arose during the period under review.

4. Targets for the share of female members of the Executive Board and for the two management levels below the Executive Board

As an exchange-listed and non-codetermination stock corporation, the SINGULUS TECHNOLOGIES AG is obligated to resolve specific targets for the Company with regards to the women’s quota and to publish them as part of the Status Report for the business year. The target for the Supervisory Board and the Executive Board has to be determined by the Supervisory Board pursuant to Art. 111 Para. 5 AktG and the targets for the two management levels below the Executive Board by the Executive Board pursuant to Art. 76 Para. 4 AktG. To determine the targets, the Supervisory and Executive Boards have to set deadlines, which cannot be more than five years into the future.

Until the Annual General Meeting on December 14, 2023, the Supervisory Board consisted of 3 members with one woman, corresponding to a ratio of 33%. The Annual General Meeting resolved to expand the Supervisory Board to four members. At the same time, another male member, Mr. Denan Chu, was elected to the Supervisory Board. In view of this change, the Supervisory Board decided at its meeting on December 13, 2023 to set a target for the proportion of women of 25%. The Supervisory Board will also include a woman after its expansion. Dr. Landwehrmann resigned from the Supervisory Board in a letter dated January 5, 2024. By court order dated January 17, 2024, Ms. Martina Rabe was appointed as a member of the Supervisory Board until the end of the next Annual General Meeting. The target ratio of 25 % women is therefore currently being achieved.

At its meeting on December 13, 2023, the Supervisory Board set the target for the Executive Board at 0%. The Executive Board of SINGULUS TECHNOLOGIES AG had two members at the time the Supervisory Board set the target figure. No women were members of the Executive Board at either time. The Supervisory Board does not currently intend to increase the size of the Executive Board. The market for management personnel is very competitive. There are very few experienced female managers in the mechanical engineering industry. The Supervisory Board therefore does not wish to be restricted by a quota for women when selecting a suitable candidate.

On June 30, 2023, the Executive Board has set the target for the women's quota for the first management level below the Executive Board to 33 % and to 17 % for the second management level below the Executive Board until June 30, 2026. Both targets were achieved in the year under review.

5. Diversity concept with respect to the composition of the Executive Board and the Supervisory Board as well as competence profile

The Supervisory Board has anchored the diversity concept and competence profile of its composition with respect to for example age, gender, educational and occupational background in the bylaws. The age limit for the membership of the Supervisory Board is set at 72 years. Accordingly, the Supervisory Board should not recommend anyone for appointment to the Supervisory Board for a tenure exceeding the person's age of 72. Candidates recommended to the Annual General Meeting for appointment to the Supervisory Board should have the following expertise and experience (while not all of the criteria have to be met): (i) know-how of the core business areas, in particular the competitive situation and requirements of customers, (ii) professional expertise with regards to technologic challenges, which are connected with the development of new machines, (iii) experience with complex development projects, (iv) international business experience, also outside of Europe, (v) experience with national and international marketing sales structures, (vi) expertise in the areas capital markets and investor relations and (vii) expertise in the area of mergers & acquisitions. At least one member of the Supervisory Board must possess special, professional know-how in the areas of accounting and auditing. In its entirety the members have to be familiar with the sector, in which the Company is operating. Members should display personality, integrity, professionalism, willingness to perform and independence. Nationality should not play a role in the selection of a candidate. In addition, more than half of the members of Supervisory Board should be independent from the Company and the Executive Board. The Supervisory Board has set a target quota for the share of female members of the Supervisory Board.

Requirements for the diversity concept with respect to the Executive Board are also fixed in the bylaws of the Supervisory Board. Accordingly, the Chairperson of the Supervisory Board coordinates the long-term succession planning for the Executive Board, while a maximum age of 65 years is intended for the members of the Executive Board. For the appointment of the Executive Board, the Supervisory Board is also urged to consider diversity aspects. This is implemented on a case-by-case basis.

6. Additional corporate governance information

6.1 Transparency and communications

The Executive Board publishes potentially share price-relevant information concerning the SINGULUS TECHNOLOGIES AG immediately unless the Company is exempted in individual cases.

The SINGULUS TECHNOLOGIES AG makes sure that the shareholders of the Company are able to gain timely and extensive access about the situation of the Company through the information provided on its internet website. The SINGULUS TECHNOLOGIES AG reports about its business trends and the financial and earnings situation to its shareholders four times during the business year. All financial reports, current Company presentations, the corporate calendar as well as announcements pursuant to Art. 17 MAR, Directors' Dealings pursuant to Art. 19 MAR and voting right announcements pursuant to Art. 33ff. Wertpapierhandelsgesetz (WpHG) are published under www.singulus.de in the segments Investor Relations and Corporate Press Releases. To improve transparency and to promote the shares of the SINGULUS TECHNOLOGIES AG held several analyst conferences and numerous one-on-one discussions with investors.

All reports and documents on corporate governance and company management, including the declaration of compliance with the Code, a reference to the full text of the Code available on the Internet and the company's Articles of Association can also be found under Investor Relations, keyword Corporate Governance. The invitations to the Annual General Meeting and voting results can be viewed on the SINGULUS TECHNOLOGIES website in the Investor Relations section.

6.2 Shareholders and Annual General Meeting

The shareholders of the SINGULUS TECHNOLOGIES AG exercise their rights in the course of the Annual General Meeting of the Company where each share grants one vote. In the course of the ordinary Annual General Meeting the shareholders resolve pursuant to the legal requirements the appropriation of the retained earnings, the discharge of Executive and Supervisory Boards and the appointment of the auditor. Changes in the bylaws and corporate actions are generally resolved by the Annual General Meeting and implemented by the Executive Board.

The Annual General Meeting of the SINGULUS TECHNOLOGIES AG is usually held during the first half of the year. The Annual General Meeting on July 19, 2023 authorized the Executive Board to hold Annual General Meetings in virtual form by amending the Articles of Association. The Annual General Meeting for the financial year 2022 was held as a virtual meeting on December 14, 2023 on the basis of this authorization.

The Executive Board and Supervisory Board consider this statutory form of Annual General Meeting to be the best solution in the company's current situation. It has cost advantages over face-to-face meetings. The rights of shareholders are not restricted. Shareholders can submit questions before the Annual General Meeting. The questions will be answered in writing and made available to the shareholders attending the Annual General Meeting. The Executive Board's speech will be published in advance so that shareholders can ask questions about the presentation. During the meeting, every shareholder has the right to speak via video communication. Follow-up questions can be asked about the answers given or about new facts. Every shareholder has the right to make statements at the meeting, even without having to ask further questions.

The Executive Board and Supervisory Board are of the opinion that bringing forward the right to ask questions offers great advantages because questions can be answered diligently and with sufficient time. The company does not have the resources for a large back office to answer questions raised spontaneously during the meeting.

The virtual Annual General Meeting makes it easier for shareholders to participate, as travel time and costs are eliminated. Voting rights can be exercised by issuing instructions to the proxy or at the virtual meeting.

6.3 Accounting principles and audit of financial accounts

The consolidated financial statements and the interim reports of the SINGULUS TECHNOLOGIES Group are drawn up in accordance with IFRS as well as pursuant to applicable commercial law regulations pursuant to Art. 315e Para. 1 HGB. The individual financial statements of the SINGULUS TECHNOLOGIES AG are drawn up according to HGB and AktG principles as well as supplementary requirements according to the bylaws. The annual financial statements and consolidated statements for the business year 2023 drawn up by the Executive Board were audited by the auditor Baker Tilly GmbH & Co. KG, Frankfurt am Main. The Supervisory Board reviewed the financial statements and the results of the audit and adopted the separate financial statements for the financial year 2023 and approved the consolidated financial statements on April 4, 2024. The Supervisory Board discussed important aspects with the auditor.

Interim reports are published within 45 days after the respective end of the quarter. The annual financial statements and the consolidated financial statements are made publicly accessible within 90 days after the end of the respective business year.

The Annual Report for the business year 2023 and the interim reports are published on SINGULUS TECHNOLOGIES AG's website.

6.4 Compensation of Executive and Supervisory Board members

Similar to the past years, SINGULUS TECHNOLOGIES individually reports the fixed and variable components of the compensation as well as the compensation components with long-term share-based incentives for the members of the Executive

Board. In addition, also the contributions to pensions, which are based on a defined contribution scheme, are disclosed individually. The information can be found in the remuneration report, which is available at www.singulus.de/de/investor-relations/corporate-governance. Pursuant to Art. 162 AktG, the Compensation Report lays out the compensation and the compensation scheme for the Executive Board in detail and on an individual basis and also explains the design of the compensation components with long-term incentives. In addition, the remuneration of the members of the Supervisory Board is stated individually.

SHAREHOLDINGS AS WELL AS REPORTABLE SECURITIES' DEALINGS OF EXECUTIVE AND SUPERVISORY BOARD MEMBERS

1. Shareholdings of Executive and Supervisory Board members

No member of the Executive or Supervisory Board holds directly or indirectly a share of the nominal capital of the Company exceeding 1 %.

The following members of the Executive and Supervisory Board held directly or indirectly shares in the SINGULUS TECHNOLOGIES AG as of December 31, 2023:

Shareholdings of Executive and Supervisory Board members	December 31, 2023	December 31, 2022
Supervisory Board		
Dr.-Ing. Wolfhard Leichnitz, Chairman of the Supervisory Board	245	245
Dr. Silke Landwehrmann	2,000	2,000
Dr. Rolf Blessing *	0	0
Dr. Changfeng Tu**	0	0
Executive Board members		
Dr. Stefan Rinck, CEO	122	122
Markus Ehret, CFO	43	43

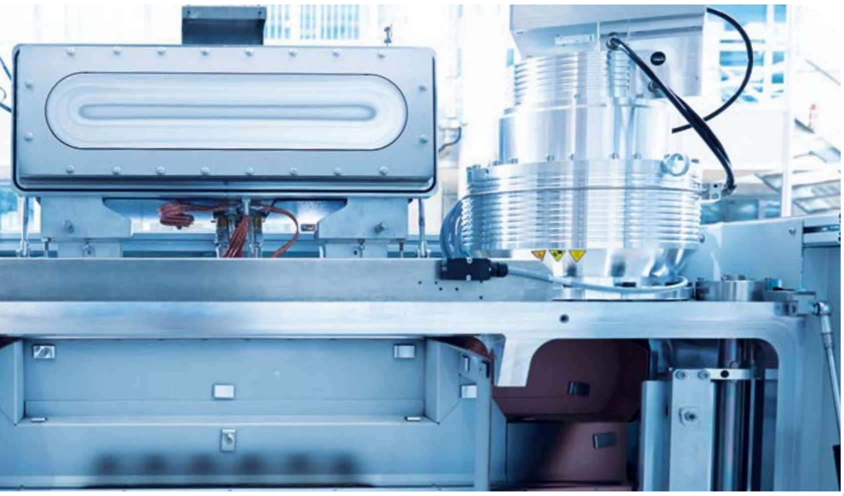
* Resigned from the Supervisory Board as of July 19, 2023

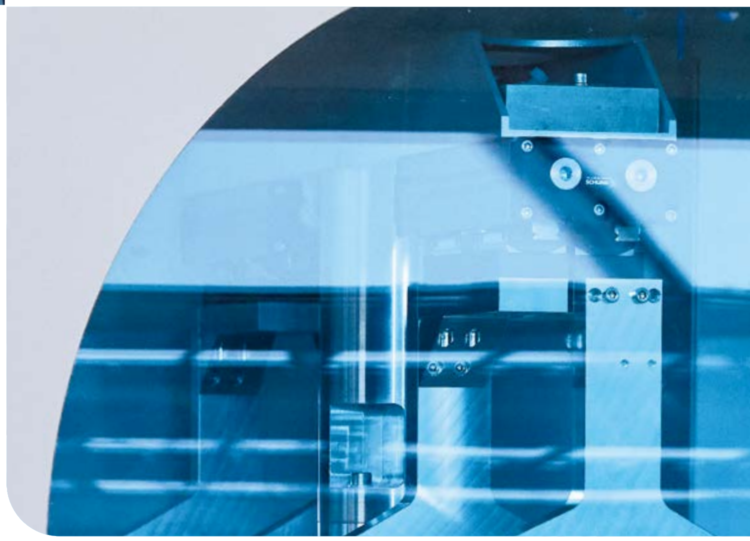
** Member of the Supervisory Board since July 19, 2023

The sitting members of the Executive and Supervisory Boards did not hold subscription rights through stock options or convertible bonds as of December 31, 2022.

2. Directors' Dealings

Pursuant to Art. 19 MAR, members of the Executive and Supervisory Boards or related persons were obligated in the business year 2023 to report transactions with shares or debt instruments of the Company or related derivatives or with other related financial instruments, if the total volume of the activities within one calendar year exceeds a total volume of € 20,000. The Company was not notified of any relevant transactions for the business year 2023.





▶ POLYCOATER

Vacuum Coating System for the Coating of 3D Substrates

SINGULUS TECHNOLOGIES presents an innovative inline sputtering system for the automated treatment of three-dimensional components. The sustainable coating and surface treatment is suitable for various applications in industries such as automotive, consumer goods, sanitary, cell phones and packaging. The POLYCOATER system significantly optimizes production processes and relies on environmentally friendly vacuum coating processes.

CONSOLIDATED BALANCE SHEET

as of December 31, 2023 and December 31, 2022

ASSETS	Note	12/31/2023 EUR million	12/31/2022 EUR million
Cash and cash equivalents	(6)	11.5	18.7
Financial assets subject to restrictions on disposal	(7)	3.2	3.8
Trade receivables	(8)	2.9	2.8
Receivables from construction contracts	(8)	17.2	10.4
Other receivables and other assets	(9)	5.2	9.6
Total receivables and other assets		25.3	22.8
Raw materials, consumables and supplies		9.9	8.3
Work in process		2.8	5.7
Total inventories	(10)	12.7	14.0
Total current assets		**52.7**	**59.3**
Property, plant and equipment	(12)	7.1	6.7
Capitalized development costs	(11)	4.4	4.1
Goodwill	(11)	6.7	6.7
Other intangible assets	(11)	0.7	0.9
Deferred tax liabilities	(22)	0.2	0.1
Total non-current assets		**19.1**	**18.5**
Total assets		**71.8**	**77.8**

EQUITY AND LIABILITIES	Note	12/31/2023 EUR million	12/31/2022 EUR million
Trade payables		8.9	9.9
Prepayments received	(14)	5.8	8.0
Liabilities from construction contracts	(8)	24.6	34.8
Financing liabilities from the loan borrowed	(17)	29.3	10.0
Financial liabilities from the issuance of bonds	(16)	0.2	0.2
Current leasing liabilities		0.8	0.3
Other liabilities	(13)	8.7	9.9
Provisions for restructuring measures	(20)	0.3	2.1
Provisions for taxes		0.6	0.5
Other provisions	(19)	8.1	8.0
Total current liabilities		**87.3**	**83.7**
Financial liabilities from the issuance of bonds	(16)	11.8	11.1
Liabilities from borrowings	(17)	2.0	0.0
Non-current leasing liabilities		0.2	0.4
Pension provisions	(18)	12.2	11.4
Deferred tax liabilities	(22)	2.9	4.8
Total non-current liabilities		**29.1**	**27.7**
Total liabilities		**116.4**	**111.4**
Subscribed capital	(21)	8.9	8.9
Capital reserves		19.8	19.8
Other reserves	(21)	1.8	3.0
Retained earnings		-75.1	-65.3
Equity attributable to owners of the parent		**-44.6**	**-33.6**
Total equity		**-44.6**	**-33.6**
Total equity and liabilities		**71.8**	**77.8**

CONSOLIDATED INCOME STATEMENT

for the period from January 1 to December 31, 2023 and 2022

		1/1 -12/31			
		2023		2022	
	Note	EUR million	in %	EUR million	in %
Revenue (gross)	**(5)**	**73.2**	**101.0**	**87.9**	**100.1**
Sales deductions and direct selling costs	(24)	-0.7	-1.0	-0.1	-0.1
Revenue (net)		**72.5**	**100.0**	**87.8**	**100.0**
Cost of sales		-56.3	-77.7	-62.6	-71.3
Gross profit on sales		**16.2**	**22.3**	**25.2**	**28.7**
Research and development	(29)	-6.9	-9.5	-7.1	-8.1
Sales and customer service		-10.9	-15.0	-11.7	-13.3
General administration	(28)	-8.9	-12.3	-10.5	-12.0
Other operating expenses	(30)	-0.6	-0.8	-0.5	-0.6
Other operating income	(30)	1.0	1.4	1.1	1.3
Expenses from restructuring		0.0	0.0	-2.7	-3.1
Income from the sale of property, plant and equipment		0.0	0.0	12.1	13.8
Total operating expenses		-26.3	-36.3	-19.3	-22.0
Operating result (EBIT)		**-10.1**	**-13.9**	**5.9**	**6.7**
Finance income	(31)	0.7	1.0	0.0	0,0
Finance costs	(31)	-2.1	-2.9	-2.0	-2.3
EBT		**-11.5**	**-15.9**	**3.9**	**4.4**
Tax expense/income	(22)	1.7	2.3	-4.0	-4.6
Profit or loss for the period		**-9.8**	**-13.5**	**-0.1**	**-0.1**

Thereof attributable to:					
Owners of the parent		-9.8		-0.1	
Non-controlling interests		0.0		0.0	
Basic earnings per share based on the profit for the period (in EUR) attributable to owners of the parent	(23)	-1.10		-0.01	
Diluted earnings per share based on the profit for the period (in EUR) attributable to owners of the parent	(23)	-1.10		-0.01	

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

for the period from January 1 to December 31, 2023 and 2022

	Note	1/1 - 12/31 2023 EUR million	 2022 EUR million
Profit or loss for the period		**-9.8**	**-0.1**
Items that will never be reclassified to profit and loss:			
Actuarial gains and losses from pension commitments	(18)	-0.6	4.9
Items that may be reclassified to profit and loss:			
Exchange rate differences in the fiscal year	(21)	-0.6	1.3
Total income and expense recognized directly in other comprehensive income		-1.2	6.2
Total comprehensive income		**-11.0**	**6.1**
Thereof attributable to:			
Owners of the parent		-11.0	6.1

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

for the period from January 1 to December 31, 2023 and 2022

	Equity Attributable to Owners of the Parent		
			Other Reserves
	Subscribed Capital	Capital Reserves	Currency Translation Reserves
	EUR million	EUR million	EUR million
Note	(21)	(21)	(21)
As of January 1, 2022	**8.9**	**19.8**	**4.1**
Profit or loss for the period	0.0	0.0	0.0
Other comprehensive income	0.0	0.0	1.3
Total comprehensive income	**0.0**	**0.0**	**1.3**
As of December 31, 2022	**8.9**	**19.8**	**5.4**
As of January 1, 2023	**8.9**	**19.8**	**5.4**
Profit or loss for the period	0.0	0.0	0.0
Other comprehensive income	0.0	0.0	-0.6
Total comprehensive income	**0.0**	**0.0**	**-0.6**
As of December 31, 2023	**8.9**	**19.8**	**4.8**

Equity Attributable to Owners of the Parent			Equity
Other Reserves	Retained Earnings		
Actual Gains and Losses from Pension Commitments	Other Retained Reserves	Total	
EUR million	EUR million	EUR million	EUR million
(18)			
-7.3	**-65.2**	**-39.7**	**-39.7**
0.0	-0.1	-0.1	-0.1
4.9	0.0	6.2	6.2
4.9	**-0.1**	**6.1**	**6.1**
-2.4	**-65.3**	**-33.6**	**-33.6**
-2.4	**-65.3**	**-33.6**	**-33.6**
0.0	-9.8	-9.8	-9.8
-0.6	0.0	-1.2	-1.2
-0.6	**-9.8**	**-11.0**	**-11.0**
-3.0	**-75.1**	**-44.6**	**-44.6**

CONSOLIDATED CASH FLOW STATEMENT

for the period from January 1 to December 31, 2023 and 2022

	Note	2023 EUR million		2022 EUR million	
Cash flows from operating activities					
Profit or loss for the period			-9.8		-0.1
Adjustment to reconcile profit or loss for the period to net cash flow					
Amortization, depreciation and impairment of non-current assets	(11/12)	2.8		3.6	
Contribution to the pension provisions	(18)	0.8		-3.7	
Profit/loss from disposal of non-current assets		-0.5		-8.2	
Other non-cash expenses/income		-0.1		-0.5	
Net finance costs	(31)	1.4		2.0	
Net tax expense	(22)	-1.7		4.0	
Change in trade receivables		-0.2		0.5	
Change in construction contracts		-16.9		-23.0	
Change in other receivables and other assets		4.2		3.6	
Change in inventories		0.9		1.3	
Change in trade payables		-1.2		-5.8	
Change in other liabilities		-1.2		-0.8	
Change in prepayments		-2.5		3.4	
Change in provisions from restructuring measures		-1.8		1.9	
Change in further provisions		-0.5		0.3	
Other deferred tax effects		0.0	-16.5	-1.2	-22.6
Net cash from/used in operating activities			**-26.3**		**-22.7**

	Note	2023 EUR million		2022 EUR million	
Cash flows from investing activities					
Cash paid for investments in development projects	(11)	-1.5		-1.5	
Cash paid for investments in other intangible assets and property, plant and equipment	(11/12)	-0.5		-0.5	
Cash received from the disposal of assets and liabilities classified as held for sale		0.0		9.3	
Net cash from/used in investing activities			-2.0		7.3
Cash flows from financing activities					
Cash used to pay bond interest	(16)	-0.5		-0.5	
Cash received/used on the issuance of loans and other financing commitments	(17)	22.0		10.0	
Cash used to pay leasing liabilities		-0.4		0.0	
Payments for financing leasing liabilities		-0.4		-2.0	
Cash received/used on financial assets subject to restrictions on disposal		0.5		11.4	
Net cash from/used in financing activities			21.2		18.9
Increase/decrease in cash and cash equivalents			**-7.1**		**3.5**
Effect of exchange rate changes			-0.1		0.2
Changes in scope of consolidation			0.0		0.0
Cash and cash equivalents at the beginning of the reporting period			**18.7**		**15.0**
Cash and cash equivalents at the end of the reporting period			**11.5**		**18.7**

Cash and cash equivalents comprise monetary investments with a remaining maturity of up to three months at the time of acquisition.

Financial assets subject to restrictions on disposal are presented separately in the balance sheet. These financial assets relate to the Company's financing transactions and are included in the consolidated cash flow statement as cash flows from financing activities.

SINGULUS TECHNOLOGIES Group

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS AS OF DECEMBER 31, 2023

Note 1 - General Information

The consolidated financial statements present the operations of SINGULUS TECHNOLOGIES AG, Hanauer Landstrasse 103, 63796 Kahl am Main (hereinafter also referred to as "SINGULUS TECHNOLOGIES AG") and its subsidiaries (hereinafter also referred to as "SINGULUS TECHNOLOGIES," the "Company" or the "Group").

The Company is registered under HRB 6649 in the commercial register at the local court (*Amtsgericht*) of Aschaffenburg.

The consolidated financial statements were prepared in Euro (€). Unless stated otherwise, all figures are presented in millions of Euro (million €). Due to presentation in million €, differences in rounding may occur.

The consolidated financial statements of SINGULUS TECHNOLOGIES AG were prepared in accordance with the International Financial Reporting Standards ("IFRSs") as adopted in the European Union ("EU") and the additional requirements of section 315e (1) of the German Commercial Code (*Handelsgesetzbuch*, "HGB").

The term "IFRS" includes all International Financial Reporting Standards and International Accounting Standards ("IAS") adopted by the EU with mandatory application as of the reporting date. All interpretations of the International Financial Reporting Standards Interpretations Committee ("IFRS IC") – formerly the Standing Interpretations Committee ("SIC") and the International Financial Reporting Interpretations Committee ("IFRIC") – that were mandatory for fiscal year 2023 were likewise applied.

In order to improve the clarity and meaningfulness of the consolidated financial statements, individual items are aggregated in the balance sheet and income statement and presented separately and in the notes to the financial statements.

The consumption of more than half of the nominal capital pursuant to HGB was incurred in the business year 2017 and was reported on September 21, 2017. The extraordinary shareholders' meeting was convened on November 29, 2017. In the course of the extraordinary general meeting on October 29, 2021, pursuant to Art. 92 Para. 1 AktG the Executive Board again reported on the loss of the nominal capital pursuant to HGB of the parent Company. The background to the depletion of shareholders' equity was presented, which was mainly due to the timing of revenue recognition pursuant to HGB and IFRS and the operating losses resulting from the underutilization of the organization in recent years.

However, from today's point of view, the Group has sufficient available liquid funds to safeguard the course of business and therefore draws up the financial statement according to the going-concern assumptions.

With respect to the going concern assumption for the Company and thus the Group, please refer to the details under Note 4.

Note 2 - Business activities

SINGULUS TECHNOLOGIES develops and builds machines for economic and resource-efficient production processes. The application areas include vacuum thin-film and plasma coating for wet-chemical processes as well as thermal process technologies. For all machines, processes and applications SINGULUS TECHNOLOGIES draws upon its know-how in the areas of automation and process technology. Additional fields of activity are being tapped into aside from the Solar, Semiconductor, Data Storage (Optical Disc), Decorative Coatings and Medical Technology divisions. The complete machines program of the company is complemented by a global network for replacement parts and service activities.

For more information, please refer to the comments on segmental reporting in Note 5.

Note 3 - New accounting standards

The following IASB pronouncements, which have already been successfully adopted by the EU, are mandatory for fiscal years beginning on or after January 1, 2023 and, where applicable, were applied by SINGULUS TECHNOLOGIES for the first time in fiscal year 2023. These amendments to standards and the new accounting standard have no impact on the presentation of the net assets, financial position and results of operations or on earnings per share:

- IFRS 17 insurance contracts
- Disclosures on accounting policies - amendments to IAS 1 and IFRS Practice Statement 2
- Definition of accounting-related estimates – amendments to IAS 8
- Deferred taxes relating to assets and liabilities arising from a single transaction - amendments to IAS 12
- Reform of the international tax system - model provisions for Pillar 2 - amendments to IAS 12 (first application May 23, 2023)

The IASB has issued the following amendments to standards, the application of which is not yet mandatory for the fiscal year 2023 and some of which have not yet been adopted by the EU.
In this respect, the following accounting standards have not yet been applied by SINGULUS TECHNOLOGIES:

- Non-current liabilities with ancillary conditions - amendments to IAS 1 and classification of liabilities as current or non-current - amendments to IAS 1, first-time application from January 1, 2024
- Lease liabilities from a sale-and-lease-back transaction – amendments to IFRS 16, first-time application from January 1, 2024
- Supplier financing arrangements - amendments to IAS 7 and IFRS 7, first-time application from January 1, 2024
- Lack of exchangeability - amendments to IAS 21, first-time application from January 1, 2025
- Sale or contribution of assets between an investor and an associate or joint venture - Amendments to IFRS 10 and IAS 28, first-time application still pending.

These new accounting standards have no impact on the presentation of the net assets, financial position and results of operations or on earnings per share:

The early application of standards and interpretations that are not yet mandatory is not currently planned.

Note 4 - Significant accounting principles

The Company prepares its accounts on a going concern basis and draws attention to the following events and circumstances:

Both in view of achieving the expected financial results and also in terms of the future trend of the liquidity situation in fiscal year 2024, the SINGULUS TECHNOLOGIES Group is to a large extent dependent on the further development of the business activities with select, large customers. Sufficient liquidity of the Company and the Group in the next 24 months after the end of the 2023 financial year can only be maintained if the planning can be realized in this period. It is an essential prerequisite for the planning that the partial payments, which are due based on the already contracted large orders, will actually be made and without material delay. Moreover, it is required to win additional, substantial major orders by the end of 2025. Furthermore, the repayment of the super senior loan in the amount of € 4.0 million in December 2024 must be guaranteed from the financial resources generated by the Company.

To further secure the liquidity, the SINGULUS TECHNOLOGIES AG has a loan from the Bank of Shanghai in the amount of € 10.0 million at its disposal since May 2022. The repayments of the loan is guaranteed by the China National Building Material Group Corporation, Beijing/China, (CNBM), the parent company of the Chinese major shareholder Triumph Science & Technologies Co. Ltd., Beijing/China, (Triumph). The term of the agreement amounted to twelve months initially and was extended by another twelve months until May 9, 2024 with effect from January 31, 2023, subject to the occurrence of conditions precedent. The Management Board expects this loan to be extended in good time with the support of the guarantor CNBM.

Furthermore, the Company has received a loan by the CBMITI, a subsidiary of the main shareholder Triumph in the amount of € 20.0 million as per contract dated February 3, 2023. The loan was disbursed in two tranches on February 6, 2023 in the amount of € 9.6 million and on March 27, 2023 in the amount of € 10.4 million. The disbursed funds have a minimum availability period of 18 months from the disbursement date, so that CBMITI is entitled to call the loans granted in total or part from August 4, 2024 or September 28, 2024. With the loan agreement dated October 10, 2023, an amount of € 10 million from this agreement was converted into a loan from the Bank of Shanghai, which has a term of 12 months from the date of disbursement and is expected to mature in April 2025.

To cover the aforementioned financial liabilities due in the forecast period, the main shareholder Triumph guarantees to provide the Company with sufficient funds to meet its financial obligations until March 31, 2025.

The Executive Board expects the partial payments to be received on schedule and the signing of further major orders with a high degree of probability. From the Executive Board’s perspective, financing on the basis of the current corporate planning until the end of 2025 is mainly probable.
These events and circumstances indicate that there are material uncertainties, which can raise doubts as to the ability of the Company and the Group to continue to operate as a going concern within the meaning of Art. 322 Para. 2 Sent. 3 HGB. Accordingly, the SINGULUS TECHNOLOGIES Group might not be able to realize its assets as well as to cover its liabilities during the regular course of its operations.

4.1 Consolidation principles and scope of consolidation

The consolidated financial statements include the financial statements of the SINGULUS TECHNOLOGIES AG and its subsidiaries as of December 31 of a given fiscal year.
Subsidiaries are fully consolidated from the date of acquisition, i.e. from the date on which the Group obtains control. The consolidation is terminated when the control by the parent company ceases to exist.

The financial statements of the subsidiaries are prepared as of the same balance sheet date as that of the parent, using consistent accounting policies.

All intragroup balances, income and expenses and gains and losses resulting from intragroup transactions are eliminated in full.

In addition to the SINGULUS TECHNOLOGIES AG, the consolidated financial statements include all companies, which are controlled by the company. The companies are included on the basis of ownership of all voting rights.

The following subsidiaries are included in the consolidated financial statements:

- SINGULUS TECHNOLOGIES Inc., Windsor, USA
- SINGULUS TECHNOLOGIES MOCVD Inc., Windsor, USA
- SINGULUS TECHNOLOGIES ASIA PACIFIC Pte. Ltd., Singapore
- SINGULUS TECHNOLOGIES LATIN AMERICA Ltda., São Paulo, Brazil
- SINGULUS TECHNOLOGIES FRANCE s.a.r.l., Sausheim, France
- SINGULUS TECHNOLOGIES TAIWAN Limited, Taipei, Taiwan
- SINGULUS TECHNOLOGIES SHANGHAI Co. Ltd., Shanghai, China
- HamaTech USA Inc., Austin, USA
- STEAG HamaTech Asia Ltd., Hong Kong, China
- SINGULUS CIS Solar Tec GmbH, Kahl am Main, Germany
- SINGULUS New Heterojunction Technologies GmbH, Kahl am Main, Germany

For further details, please refer to Note 36.

4.2 Foreign currency translation

The financial statements of the foreign subsidiaries are prepared in the currency in which the majority of transactions are concluded (functional currency). The functional currency is the relevant local currency. For inclusion of the foreign financial statements in the Group's reporting currency, the balance sheet items are translated using the closing rate on the balance sheet date and income statement items are translated using the average rate for the fiscal year. The equity of equity investments is translated using the historical rate. Currency translation differences arising from the application of different exchange rates are recognized in other comprehensive income.

Foreign currency monetary items are translated using the closing rate. Exchange differences are recognized as income or expenses in the period in which they occur.

Currency translations are based on the following exchange rates:

		Balance sheet date		**Annual average rate**	
Currency 1 EUR in		**Dec. 31, 2023**	**Dec. 31, 2022**	**Dec. 31, 2023**	**Dec. 31, 2022**
Brazil	BRL	5.354	5.651	5.398	5.438
China	CNY	7.803	7.379	7.648	7.076
Singapore	SGD	1.456	1.434	1.452	1.451
Taiwan	TWD	33.672	32.828	33.675	31.321
USA	USD	1.104	1.070	1.081	1.054

4.3 Management’s use of judgment and main sources of estimating uncertainties

The preparation of consolidated financial statements in accordance with IFRS requires the use of estimates and assumptions by management which have an effect on the amounts of the assets, liabilities, income, expenses and contingent liabilities reported. Assumptions and estimates generally relate to the uniform determination of useful lives of assets within the Group, impairment of assets, the measurement of provisions, the collectability of receivables, the recognition of realizable residual values for inventories and the probability of future tax benefits. The actual values can differ from the assumptions and estimates made on a case by case basis. Any changes are recognized as profit and loss at the time of the knowledge gained.

In the Group, the use of judgment and estimating uncertainties affect the following areas in particular:

4.3.1 Impairment of assets

The Group determines whether goodwill is impaired at least once a year (for development expenses refer to 4.3.5). Moreover, if there is any indication that an asset may be impaired, that asset is tested for impairment by estimating its recoverable amount of the asset. If it is not possible to estimate the recoverable amount of the individual asset, the Group determines the recoverable amount of the cash-generating unit to which the asset is allocated.

This requires an estimate of the recoverable amount of the assets or cash-generating units to which the goodwill or asset is allocated. Please also refer to the comments under 4.14 "Impairment of non-financial assets".

4.3.2 Deferred tax assets

Deferred tax assets are recognized for all temporary differences and for all unused tax loss carryforwards to the extent that it is probable that taxable profit will be available against which the tax assets can be utilized. Significant management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the probable timing and level of future taxable profits together with future tax planning strategies. Please also refer to the comments in Note 21.

4.3.3 Share-based compensation

The Group measures the cost of granting equity-based instruments to employees by reference to the fair value of the equity instruments at the date on which they are granted. In order to estimate fair value, an appropriate measurement approach must be determined for grants of equity instruments. This approach depends on the terms and conditions of the grant. Furthermore, the appropriate data to be used in this measurement approach, including the anticipated option maturity, volatility, dividend yield and the corresponding assumptions, must be determined. The assumptions and approaches used are disclosed in Note 15.

4.3.4 Pension obligations

The cost of defined benefit pension plans is determined using actuarial calculations. The actuarial valuation involves making assumptions about discount rates, future salary increases, mortality rates and future pension increases. As these plans are of a long-term nature, such estimates are highly uncertain. Please also refer to the comments in Note 17.

4.3.5 Development costs

Development costs are capitalized in accordance with the accounting policies described under "Research and development costs". In order to test for impairment, the management must make assumptions regarding the amount of estimated future cash flows from assets, the discount rates to be applied, and the timing of the future cash flows expected to be generated by the assets. Please also refer to the comments in Note 11.

4.3.6 Leases

The Group has entered into lease agreements. The term of such agreements may be extended at the Group's discretion. Please refer to the comments below under Note 4.13 and Note 33.

4.3.7 Construction contracts

In order to evaluate the stage of completion of customer-specific construction contracts, the costs to complete the order must be estimated.

Please also refer to the comments made below under 4.4 Revenue recognition and to the comments in Note 8.

4.3.8 Provisions

Estimating future expenses is fraught with uncertainty. This is especially the case with provisions for warranties.

4.4 Revenue recognition

The Group generates revenue solely from contracts with customers. There are no sources of other revenue in accordance with IFRS 15.113. For the disaggregation of revenue in accordance with IFRS 15.114, please refer to Note 5.

The Group recognizes revenue when it satisfies a performance obligation by transferring a specified asset to a customer. An asset is deemed to have been transferred once the customer obtains control over that asset. Depending on the transfer of control, revenue is recognized either at a point in time or over time in the amount that reflects the consideration to which the Company expects to be entitled.

Revenue relating to the sale of equipment for manufacturing optical data storage devices in the Life Science operating segment is recognized when a contract has come into effect, the delivery has been made, and, if required, the equipment has been installed for and accepted by the customer and payment is reasonably certain. Revenue relating to services is recognized when the service has been rendered, a price has been negotiated and is determinable and payment thereof is probable. Revenue from the sale of individual components of equipment or replacement parts is recognized at a point in time when control is transferred (generally at the time of shipping) in accordance with the underlying agreements.

Given that the Solar, Life Science and Semiconductor segments do not manufacture the other equipment in serial batches but rather to individual customer order for which the Company has no alternative use, revenue for the majority of the equipment is recognized over time. The entitlement to payment for the service rendered is examined at the same time and is regularly given by the structure of the contract (IFRS 15.35 (c)).
The relevant stage of completion is calculated using the input-oriented cost-to-cost method. The selected method enables the Company to make the most precise estimate of the percentage of completion because the Company uses an IT-based project controlling system that reliably estimates the budgeted costs and continuously monitors the total costs. The costs incurred to date are calculated as a proportion of the estimated total costs.

In addition, the company recognizes provisions for warranties on a time-apportioned basis using the percentage of completion method. However, this does not take into account the warranty expense to determine the stage of completion To determine the provisions for warranties please refer to Note 4.18.

Contracts are recognized on the balance sheet either as receivables from construction contracts (assets) or as liabilities from construction contracts if the prepayments received exceed the cumulative work performed. Once the final invoice has been issued, the closing balance is reclassified as trade receivables. If it is probable that the total contract costs exceed the total contract revenue, the expected loss is immediately expensed.

Whether the requirements for recognizing revenue over time are met in accordance with IFRS 15.35(c) is reviewed on an individual basis at the start of a customer order.

Revenue is recognized net of VAT, returns, sales deductions, credits and direct selling costs. Potential contractual penalties are assessed on a case-by-case basis.

The typical payment terms for the sale of equipment provide for a significant down payment at the commencement of production. Further payment terms are contractually defined and depend on the degree of completion, calling for a final payment upon transfer of the specified equipment. No material financing components exist.

Typically, payment targets of between 30- and 60-days net are agreed for the replacement parts and service business. In addition, customer-specific advance payments are also agreed.

4.5 Goodwill

In all business combinations, the goodwill acquired was initially measured at cost, this being the excess of the cost of the business combination over the acquirer’s interest in the fair value of the identifiable assets acquired and the liabilities and contingent liabilities assumed (partial goodwill method). In accordance with IFRS 3 and IAS 27, there is an option to recognize the total amount of the goodwill acquired, including goodwill attributable to non-controlling interests, in the case of business combinations (full goodwill method). After initial recognition, goodwill is measured at cost less any accumulated impairment losses.

The recognized goodwill is not amortized. It is tested for impairment annually or whenever there are indications of impairment. Impairment testing takes place at the cash-generating unit level. These groups of cash generating units correspond to the business segment according to IFRS 8 (c. Note 5). If the recoverable amount of the relevant business segment has fallen below the carrying amount of the unit, an impairment loss is recognized in accordance with IAS 36. Reversals of impairment losses are prohibited.

4.6 Research and development costs

Research costs are expensed in the period in which they are incurred. Pursuant to IAS 38, development costs are recognized as intangible assets at cost, provided that the conditions of IAS 38.57 are fulfilled. In addition to the technical feasibility of completing the intangible asset, this includes the generation of probable future economic benefits from the intangible asset (IAS 38.57(d)) and the ability to measure reliably the expenditure attributable to the intangible asset during its development (IAS 38.57(f)). Cost comprises all costs directly attributable to the development process as well as appropriate shares of development-related overheads.

Profitability calculations (project calculations) are used to demonstrate the condition under IAS 38.57(d). The respective net present value of the development project is calculated on the basis of specific budgeted results for revenue/contribution margins attributable to the project, applying the company-specific discount rate.

From the point at which they can be used, the developed products are amortized on a straight-line basis over a term of five years.

At each balance sheet date, it must be reviewed whether there are any indications of impairment. If this is the case, the asset must be tested for impairment and, if necessary, an impairment charge recognized. Prior-period impairment charges must be reviewed annually to determine whether there are any indications that the impairment can be reversed.

Updated project calculations are used for the impairment tests and to calculate the recoverable amount of the capitalized development costs. Furthermore, an additional impairment test is performed at a higher level for own work capitalized allocated to the Solar operating segment as part of the goodwill impairment testing for the Solar operating segment.

Government grants received for research and development projects are offset as research grants against the research and development costs in the income statement. Repayment of subsidies is mandatory if cash flow is generated prematurely as part of ongoing subsidized projects.

4.7 Other intangible assets

Intangible assets acquired separately are recognized at cost. Intangible assets acquired in the course of a business combination are recognized at fair value as of the date of acquisition. Internally generated intangible assets are recognized, if the criteria for recognition are met. If the criteria are not met, the costs related to such intangible assets are recognized as expenses in the period in which they are incurred. Intangible assets with finite useful lives are amortized over their useful lives. Intangible assets with indefinite useful lives are not amortized, and are instead tested for impairment at least once a year. No intangible assets with indefinite useful lives were recognized in the reporting period.

The useful lives of intangible assets with finite useful lives are:

- Software 3 years
- Patents 8 years
- Technology 5 to 8 years

4.8 Cash and cash equivalents

Cash and cash equivalents comprise monetary investments with a remaining maturity of up to three months at the time of acquisition as well as bills of exchange with an original maturity of up to three months.

Financial assets subject to restrictions on disposal are presented separately in the balance sheet. These financial assets relate to the Company's financing transactions and are included in the consolidated cash flow statement as cash flows from financing activities.

4.9 Inventories

Inventories are carried at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale. Raw materials, consumables and supplies including spare parts are measured using the weighted average cost formula. In the case of manufactured products, the cost includes an appropriate share of the production overheads based on normal operating capacity. Appropriate allowances are made for potential losses due to obsolete or slow-moving inventories.

The five existing allowance classes for salability are derived from past experience and range between 0% and 100% of depreciated cost. The four existing allowance classes for days inventory held ("DIH") also range from 0% to 100% of depreciated cost.
In addition, inventories are individually tested for impairment and, if necessary, written down to their net realizable value.

4.10 Financial assets and liabilities

Recognition and subsequent measurement

Financial assets and *financial liabilities* are recognized in the balance sheet when an entity becomes party to the contractual provisions of the instrument. All financial assets and financial liabilities were initially recognized at attributable fair value (with the exception of trade receivables, which are recognized at the transaction price).

Financial assets are measured at amortized cost if they are held within a business model whose objective is to hold financial assets in order to collect contractual cash flows.

i. *Trade invoices* are issued mainly in euros and are recognized as *receivables* at the fair value of the *goods supplied or services rendered*.

If there is an objective indication that receivables carried at amortized cost are impaired, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding expected future credit losses that have not yet been incurred) discounted at the financial asset's original effective interest rate (i.e., the effective interest rate determined on initial recognition). The carrying amount of the asset is reduced through the use of an allowance account. The impairment loss is recognized directly in profit or loss. For trade receivables, if there are objective indications that not all due amounts will be collected pursuant to the original payment terms (such as probability of insolvency or significant financial difficulties of the debtor), an impairment loss is charged. This only applies where there is no collateral (e.g., credit insurance policies, etc.). Receivables are derecognized when they are classified as uncollectible.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognized, the previously recognized impairment loss is reversed, with the amount of the reversal recognized in profit or loss. However, the reversal must not result in the carrying amount of the asset exceeding what the amortized cost would have been at the date the impairment is reversed if the impairment had not been recognized.

Financial assets carried at amortized cost are impaired on a general basis in accordance with the expected credit loss model of IFRS 9 based on their statistical probability of default. In particular, at Singulus this applies to unsecured accounts receivable (cf. Note 36). As a rule, no general impairment is recognized for all other financial assets due to a low probability of default.
For details on the recognition of foreign currency receivables and the related hedging transactions, please refer to the comments under 4.2 "Foreign currency translation".

II. The expected write-down on *cash and cash equivalents* and *financial assets subject to restrictions on disposal* was calculated on the basis of expected losses within the respective maturity bands. Due to the availability of demand deposits at short notice and the outstanding creditworthiness of the credit institutions, it is assumed that cash and cash equivalents are exposed to low risk of default. The Finance department monitors changes in the default risk through quarterly observation of published external credit ratings. To the extent that the potential impairment losses remain small, the Company will opt not to recognize a write-down. This is generally the case insofar as no impairment is generally recognized for cash and cash equivalents and restricted cash in accordance with the expected credit loss model.

Financial assets held for "trading" are measured at fair value through profit or loss. Financial assets classified as "hold and sell" are measured at fair value through other comprehensive income.

The Group has not classified any financial assets as measured at fair value through profit or loss or fair value through other comprehensive income.

Financial liabilities include liabilities from bond issues, liabilities from loans, trade payables and other liabilities. The Group initially recognizes financial liabilities at the date they arise. These liabilities are measured at amortized cost.

Derecognition

Financial assets are derecognized if one of the following conditions is met:

- The rights to receive cash flows from the asset have expired.
- The Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without delay to a third party under an agreement that meets the conditions in IFRS 9.3.2 ("pass-through" arrangement); and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

Financial liabilities are derecognized when the contractual obligations have been settled, canceled or have expired.

4.12 Property, plant and equipment

Property, plant and equipment are carried at cost plus directly allocable costs, less depreciation and impairments. Financing expenses pursuant to IAS 23 are not part of acquisition or production costs. Depreciation is charged on a straight-line basis over the economic lives of the assets. The economic life and depreciation method are reviewed periodically to ensure that the method and period of depreciation are consistent with the expected pattern of economic benefits from items of property, plant and equipment.

The economic lives are estimated as follows:

Buildings	25 to 30 years
Plant and machinery	2 to 10 years
Other assets	1 to 4 years

Depreciation and impairment of property, plant and equipment are recognized in the functional area to which the respective assets are allocated.

4.13 Leases

The Company is a lessee of property, plant and equipment, primarily relating to two administration and production buildings in Kahl am Main and Fürstenfeldbruck. The Company has also entered into leases for motor vehicles and forklifts. These leases are accounted for in accordance with the criteria defined in IFRS 16 and recognized as right-of-use assets under property, plant and equipment and lease liabilities.

The Group also leases IT equipment; these leases are either short-term leases or their underlying assets are of low value. The Group has opted to not recognize any right-of-use assets or lease liabilities for these leases.
For further details, please refer to Note 33.

4.14 Impairment of non-financial assets

At each reporting date, the Company assesses whether there is any indication that an asset may be impaired. If any such indication exists, or when annual impairment testing for an asset is mandatory, the Group makes an estimate of the asset's recoverable amount.

The recoverable amount of an asset or a cash-generating unit is the higher of its fair value less costs to sell and its value in use. The recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. Where the carrying amount of an asset/cash-generating unit exceeds its recoverable amount, the asset/cash-generating unit is considered impaired and is written down through profit and loss to the recoverable amount.

If a cash-generating unit is impaired, the assets in the unit are depreciated as follows:

a) First, the carrying amount of goodwill allocated to the cash-generating unit; and

b) then, the other assets of the unit pro rata on the basis of the carrying amount of each asset in the unit.

In assessing the recoverable amount, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. These estimates are based on a five-year plan prepared by the Company. This plan is derived from the three-year plan approved by the Supervisory Board and extrapolated a further two years in order to determine the recoverable amount. The perpetual annuity is determined on the basis of the fifth planning year.

For purposes of impairment testing, the goodwill acquired in business combinations is allocated to the cash-generating units, which correspond to the Group's three operating segments. The goodwill recognized reflects the current and future business activities in the Solar segment and is tested for impairment on this basis. In contrast, the other two business segments are of minor importance.

4.14.1 Key assumptions used in the recoverable amount calculation

The recoverable amount of the cash-generating units was determined based on a value-in-use calculation, using cash flow projections based on financial budgets prepared by senior management covering a five-year period. Due to the assets recognized, the impairment test essentially only applies to the Solar segment.

The following parameters of the assumptions used in the value-in-use calculation of cash-generating units leave room for estimating uncertainties:

- Development of revenue and future EBIT margins,
- Discount rates,
- Development of the relevant sales markets,
- Growth rates used to extrapolate cash flow projections beyond the forecast period.

The EBIT margins are based on the revenue expectations of the management, which are in turn validated using market research forecasts for the industry. The corporate planning for planning years 2024 to 2026 (budget period) factors in both the order backlog in the Solar segment and revenue estimated on the basis of customer requests and bids which are in the process of negotiation. Overall, management expects an increase in revenue in the Solar segment significantly greater than general market growth. The Executive Board also expects a significant improvement in EBIT margins in connection with the planned increase in revenue. Market expectations are factored in for 2027 and 2028 in particular. This revenue planning is used to determine the cost of sales and operating expenses based on current cost structures, budgetary calculations and past experience. Accordingly, the overall detailed budget period extends over five years.

Discount rates – The discount rates reflect estimates made by management on risks to be attributed to specific cash-generating units. The weighted average cost of capital ("WACC") for each cash-generating unit was used as the discount rate. The underlying base interest rate was determined using the Svensson method and yields of German government bonds (Bunds) for equivalent terms. Further components include

the 7.00 % market risk premium (previous year: 7.00 %), beta factors, assumptions regarding country and credit risk premiums and the debt ratio using market data. The pre-tax discount rate applied to the cash flow projections is 18.1 % (previous year: 14.8 %) in the Solar operating segment.
Management assumptions on market changes and growth are very significant in calculating value in use in the Solar segment. Specifically, technological trends, the future development of these trends, and the behavior of competitors is forecast for the budget period. The Company's own industry experience, dialog with customers and published industry-specific market research forecast continuing strong growth for the solar market despite the volatility prevalent in previous years.

Growth rate estimates – The forecast growth rates outside of the budget period are based on published industry-specific market research. The growth rate in the perpetual annuity using the discounted cash flow models ("DCF models") was extrapolated at 1% in the Solar segment.

The recoverable amount of the cash-generating units was determined based on a value-in-use calculation, using cash flow projections based on financial budgets prepared by senior management covering a five-year period.

Working capital attributable to the cash-generating unit is taken into account in calculating its carrying amount. This working capital was negative as of the reporting date due to prepayments received; the carrying amount of the cash-generating unit was also negative.

4.14.2 Sensitivity of assumptions made

For the Solar segment, the value in use exceeds the carrying amount by € 54.1 million. A change in the assumptions could lead to a situation in which the carrying amount of the cash-generating unit exceeds the recoverable amount. This could result from revenue in each case falling more than 34.2 % short of the budgeted figures in the five-year planning period as well as in the perpetual annuity. The Solar segment is likely to benefit from the expected global market growth. In particular, the further development of the Chinese solar market is highly significant for the Company. At the same time, management expects the EBIT margin to increase. This development is thus reflected in the value in use of the cash-generating units in this operating segment. EBIT margins will increase from a low level to 5.9 % by 2028. In the event the actual EBIT margin in the five-year planning period, as well as the perpetual annuity, is more than 7.1 percentage points lower than the assumed margin, the carrying amounts would be written down as a result.

4.15 Current tax assets and liabilities

Current tax assets and liabilities for current and prior periods are measured at the amount expected to be recovered from or paid to the tax authorities using the tax rates and tax laws that have been enacted by the end of the reporting period. The calculation of the amount is based on the tax rates and tax laws applicable at the balance sheet date.

Current taxes relating to items which are recognized in comprehensive income are also recognized in other comprehensive income and not in profit or loss.

4.16 Deferred tax liabilities and assets

Deferred taxes are recognized for all temporary differences between carrying amounts in the tax accounts and the consolidated balance sheet using the balance sheet liability method. Deferred tax liabilities are recognized for all taxable temporary differences. Deferred tax assets are recognized for all deductible temporary differences and the carryforward of unused tax losses, to the extent that it is probable that taxable profit will be available for use of the deductible temporary differences and the carryforward of unused tax losses.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of the deferred tax assets to be utilized. Previously unrecognized deferred tax assets are reviewed at the end of each reporting period and recognized to the extent to which it has become probable that future taxable profit will allow the deferred tax asset to be recovered. This decision is made based on internal tax forecasts.

Deferred tax assets and liabilities are measured using the tax rates that are expected to apply to taxable profit in the years in which these temporary differences are expected to be reversed. In the event of a change in tax rate, the effects on deferred tax assets and liabilities are recognized in profit or loss in the period to which the new tax rate applies.

Deferred tax assets and liabilities are not discounted and are classified as non-current assets or liabilities in the consolidated balance sheet.

Deferred tax assets and deferred tax liabilities are offset if SINGULUS TECHNOLOGIES AG or one of its subsidiaries has a legally enforceable right to set off a current tax asset against a current tax liability when they relate to income taxes levied by the same taxation authority.

4.17 Pension provisions

The actuarial measurement of pension provisions is based on the projected unit credit method prescribed by IAS 19 for benefit obligations for old-age pensions. This method takes into account the pensions and vested benefits known as of the balance sheet date as well as the increases in salaries and pensions to be expected in the future. The actuarial gains and losses are recognized in other comprehensive income.

4.18 Provisions

Under IAS 37, provisions are recognized if a present obligation toward a third party as a result of a past event exists which will probably result in a future outflow of resources, and whose amount can be reasonably estimated. Provisions that are not expected to lead to an outflow of resources in the subsequent year are carried at their discounted settlement amount on the balance sheet date. The discount factor is based on market interest rates. The settlement amount also includes the expected cost increases.

Provisions for warranty costs are recognized as soon as the respective revenue is realized. The provision is measured on the basis of historical estimates of the costs of meeting warranty obligations, including handling and transport costs.

For the warranty claims, the percentages used are derived from experience for each product type and range between 2.75% and 4.00% (previous year: between 2.75% and 4.00%).

4.19 Share-based compensation

The Management Board and senior executives are granted share-based remuneration ("phantom stock") which is settled with a cash payment (cash-settled share-based payment transactions).

The cost of granting the share-based payments is measured at the fair value of these instruments on the date they were granted ("grant price"). The fair value is determined by an external expert using a suitable valuation model, further details of which are given in Note 15.

The recognition of the expenses incurred in connection with the issue of share-based payment instruments takes place throughout the period in which the exercise or performance condition must be fulfilled (vesting period). This period ends on the date on which the relevant employees become fully entitled to the award. The cumulative expenses recognized on each reporting date for equity-settled transactions until the vesting date reflect the extent to which the vesting period has expired and the number of awards that, in the opinion of the Group at that date, based on the best available estimate of the number of equity instruments, will ultimately vest. The income statement charge or credit for a period represents the movement in cumulative expense recognized as of the beginning and end of that period. No expense is recognized for compensation rights that do not vest. This excludes compensation rights, whose vesting is subject to certain market conditions. These are deemed vested, irrespective whether market conditions are met or not, subject to all other performance conditions are satisfied.

The costs arising due to cash-settled share-based payments is initially calculated using a binominal model with reference to the fair value at the date on which they were granted. This fair value is expensed over the period until vesting with recognition of a corresponding liability. The liability is recalculated at each balance sheet date and at the date of settlement. Changes in the fair value are recognized in profit or loss.

4.20 Earnings per share

Basic earnings per share are calculated by dividing profit by the weighted average number of shares outstanding. Diluted earnings per share are calculated by dividing profit by the weighted average number of shares outstanding plus the number of convertible bonds and stock options outstanding, provided that the exercise of conversion rights and the stock options is reasonably certain.

The dilutive effect of the outstanding options would be reflected as additional share dilution in the determination of earnings per share, if vesting were deemed to be probable as of the balance sheet date.

Note 5 - Segmental reporting

The Group's business is organized by product for corporate management purposes and has the following three operating segments which are subject to disclosure:

Solar Segment

In the Solar division SINGULUS TECHNOLOGIES combines its activities for the manufacturing of crystalline solar cells with a focus on high-performance cells as well as for thin-film solar cells on the basis of copper-indium-gallium-diselenide (CIGS) and cadmium-telluride (CdTe). This includes various vacuum coating machines, systems for thermal processes as well as machines for wet-chemical processing. The work area of crystalline silicon solar cells includes production solutions for high-performance cell concepts such as HJT (heterojunction), IBC (interdigitated back contact) as well as TOPCon (tunnel oxide passivated contacts) solar cells. In this market SINGULUS TECHNOLOGIES also supplies complete production lines for crystalline silicon solar cells.

Life Science Segment

In the segment Life Science SINGULUS TECHNOLOGIES combined the new product solutions for Decorative Coatings, Medical Technology as well as machine and service solutions of the Data Storage areas (Optical Disc). A focus here is on vacuum coating machines for the finishing of surfaces as well as on various wet-chemical cleaning machines for applications in the medical technology and consumer goods industries.

For the consumer goods market an integrated production line DECOLINE II as well as the inline vacuum cathode sputtering machine POLYCOATER was developed in the past couple of years. In addition, SINGULUS TECHNOLOGIES markets the production machine MEDLINE for applications in medical technology. In the segment Data Storage (Optical Disc) machines for the production of the known optical disc formats (CD, DVD, Dual Layer Blu-ray Discs as well as Ultra HD Blu-ray Discs) are offered.

Semiconductor Segment

SINGULUS TECHNOLOGIES is active in the semiconductor market as a supplier of special-purpose machines and offers the machine platforms TIMARIS and ROTARIS. The application range for the two machine platforms includes MRAM (magnetoresistive random access memory), sensory technology, power controllers and microelectromechanical systems (MEMS). The company has also regrouped the process solutions for the wet-chemical cleaning of electronic components to this segment.

The complete machines program of the company is complemented by a global network for replacement parts and service activities.

Directly attributable income, expenses and assets are generally reported directly under the segments to which they are directly attributable in the segment reporting. Income, expenses and assets which cannot be directly attributed to a given segment are allocated as a proportion of planned revenue for the fiscal year.

Management monitors the business segments' operating results separately in order to facilitate decisions regarding the allocation of resources and to determine the units' performance.

The key figures for management are net revenue and EBIT (operating result). Liabilities are managed at the group level. Revenue and operating results were allocated to the operating segments as follows in 2023:

	Segment "Solar"		Segment "Life Science"		Segment "Semiconductor"		SINGULUS TECHNOLOGIES Group	
	2023	2022	2023	2022	2023	2022	2023	2022
	in million €	in million €	in million €	in million €	in million €	in million €	in million €	in million €
Gross revenue	39.0	30.0	23.9	51.7	10.3	6.2	73.2	87.9
Sales deduction and direct selling costs	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.1	-0.1
Net revenue	39.0	30.0	23.8	51.6	10.3	6.2	73.1	87.8
Operating result (EBIT)	-8.3	0.1	-1.5	7.9	-0.3	-2.1	-10.1	5.9
Amortization, depreciation and impairment	-1.7	-2.6	-0.9	-0.8	-0.2	-0.1	-2.8	-3.5
Financial result							-1.4	-2.0
earnings before taxes							-11.5	3.9

The additions to capitalized development expenses concern the Solar segment with € 1.4 million and the Semiconductor segment with € 0.1 million (previous year: € 0.4 million).

Depreciation of capitalized development costs are attributable to the Solar segment (€ 0.8 million; previous year: € 1.2 million) and the Life Science segment (€ 0.4 million; previous year: € 0.4 million).

In the business year 2023, in the Solar division substantial sales were realized with the Chinese shareholder and major customer China National Building Materials (c. Note 35.). Of that revenue, € 12.2 million or 16.7 % of total revenue was attributable to this customer. In the reporting period, significant revenue was generated with one customer in the Life Science segment. Of that revenue, € 8.9 million or 15.4 % of total revenue was attributable to this customer.

The table below displays information by geographical region as of December 31, 2023 based on non-current assets:

	Germany	Rest of Europe	North & South America	Asia	Africa & Australia
	in million €	in million €	in million €	in million €	in million €
Non-current assets	18.5	0.0	0.1	0.2	0.0

The table below displays information by geographical region as of December 31, 2022 based on non-current assets:

	Germany	Rest of Europe	North & South America	Asia	Africa & Australia
	in million €	in million €	in million €	in million €	in million €
Non-current assets	18.2	0.0	0.1	0.1	0.0

Non-current assets include non-financial assets, deferred tax assets and assets from employee benefits.

Outside of Germany, significant revenue was generated in China (€ 18.0 million; previous year: 18.6 million) and in Italy (€ 13.8 million; previous year: € 5.5 million) during the fiscal year.

The following matrix splits sales in the period under review according to the individual segments and selected categories.

January 1, to December 31, 2023	Solar	Life Science	Semiconductor	Total
	in million €	in million €	in million €	in million €
Revenue by country of destination				
Germany	3.3	8.1	1.2	12.6
Rest of Europe	16.9	1.5	2.2	20.6
North and South America	0.5	6.4	0.9	7.8
Asia	18.3	7.8	6.0	32.1
Africa & Australia	0.0	0.1	0.0	0.1
	39.0	23.9	10.3	73.2
Revenue by country of origin				
Germany	38.0	18.3	8.0	64.3
Rest of Europe	0.0	0.5	0.3	0.8
North and South America	0.0	2.4	0.3	2.7
Asia	1.0	2.7	1.7	5.4
Africa & Australia	0.0	0.0	0.0	0.0
	39.0	23.9	10.3	73.2
Products and services				
Production facilities	36.3	14.9	8.7	59.9
Service and spare parts	2.7	9.0	1.6	13.3
	39.0	23.9	10.3	73.2
Revenue recognition date				
Periodic revenue recognition	33.2	13.5	8.6	55.3
Revenue recognition as of a specific date	5.8	10.4	1.7	17.9
	39.0	23.9	10.3	73.2

The Group reported an amount of € 54.7 million (previous year: € 84.8 million) as outstanding order backlogs for performance obligations not yet rendered in full. These are expected to be rendered in the next 24 months.

January 1, to December 31, 2022	Solar	Life Science	Semiconductor	Total
	in million €	in million €	in million €	in million €
Revenue by country of destination				
Germany	4.7	17.3	2.6	24.6
Rest of Europe	5.3	4.2	0.3	9.8
North and South America	0.1	6.7	0.9	7.7
Asia	19.9	23.4	2.4	45.7
Africa & Australia	0.0	0.1	0.0	0.1
	30.0	51.7	6.2	87.9
Revenue by country of origin				
Germany	29.1	44.1	4.1	77.3
Rest of Europe	0.0	0.5	0.1	0.6
North and South America	0.1	3.7	0.9	4.7
Asia	0.8	3.4	1.1	5.3
Africa & Australia	0.0	0.0	0.0	0.0
	30.0	51.7	6.2	87.9
Products and services				
Production facilities	28.1	42.6	4.7	75.4
Service and spare parts	1.9	9.1	1.5	12.5
	30.0	51.7	6.2	87.9
Revenue recognition date				
Periodic revenue recognition	28.1	42.2	4.6	74.9
Revenue recognition as of a specific date	1.9	9.5	1.6	13.0
	30.0	51.7	6.2	87.9

Note 6 - Cash and cash equivalents

Bank balances earn interest at floating rates based on daily bank deposit rates. Short-term deposits are made for periods ranging between one day and twelve months, depending on the relevant cash requirements of the Group. These earn interest at the relevant rates applicable to short-term deposits. The fair value of cash and cash equivalents is € 11.5 million (previous year: € 18.7 million). For reasons of materiality, no loss allowances are recognized on the basis of the expected credit loss model because the bank balances are available at short notice and the selected banks have excellent credit ratings (Standard & Poor's A-3 or better).

Note 7 - Financial assets subject to restrictions on disposal

The Company has cash deposits of € 3.2 million (previous year: € 3.8 million) in blocked accounts over which it has no power of disposal. Accordingly, these deposits are included as cash flows from financing activities in the consolidated statement of cash flows if they are linked to the Group's financing transactions. Due to the low probability of default and the resulting materiality aspects, no impairment is recognized for restricted cash and cash equivalents on the basis of the expected credit loss model.

Note 8 - Trade receivables and receivables from construction contracts

	2023 in million €	2022 in million €
Trade receivables - current	3.0	2.9
Receivables from production contracts	17.2	10.4
Less allowances	-0.1	-0.1
	20.1	13.2

As of December 31, 2023, bad debt allowances of a nominal € 0.1 million had been charged on trade receivables (previous year: € 0.1 million). The development of the valuation allowances is presented below:

	2023 in million €	2022 in million €
As of January 1	0.1	0.1
Allowances recognized in profit or loss	0.0	0.0
Utilization	0.0	0.0
Reversals	0.0	0.0
As of December 31	0.1	0.1

If trade receivables become uncollectible, the associated receivables and allowances are derecognized.

As of December 31, the age structure of trade receivables and receivables from construction contracts, taking into account specific bad debt allowances, are broken down as follows:

	Total	Not due	Overdue by				
			less than 30 days	30-60 days	60-90 days	90-180 days	more than 180 days
	in million €	in million €	in million €	in million €	in million €	in million €	in million €
2023	20.1	19.3	0.6	0.1	0.0	0.0	0.1
2022	13.2	12.6	0.2	0.2	0.1	0.1	0.1

The overdue trade receivables are secured in the form of retention of title, insurance policies and letters of credit. With regard to trade receivables for which no bad debt allowance was charged, there were no indications as of the balance sheet date that the debtors would not meet their payment obligations.

Receivables from construction contracts arise when revenue can be recognized according to the stage of completion (using the cost-to-cost method) and the criteria set forth in IFRS 15.35 have been fulfilled, but this revenue cannot yet be invoiced to customers under the respective contract. The costs and estimated profits include directly allocable costs and all production-related overheads. Receivables from construction contracts are all recognized in current receivables. The receivables from construction contracts and the project-related prepayments offset against them break down as follows:

	2023 in million €	2022 in million €
Aggregate amount of costs incurred and recognized profits (less any recognized losses)	92.3	72.1
Prepayments received	-75.1	-61.7
Receivables from production contracts	17.2	10.4

Gross amounts due to customers for construction contracts, which are reported as liabilities from construction contracts in a separate balance sheet item, break down as follows:

	2023 in million €	2022 in million €
Aggregate amount of costs incurred and recognized profits (less any recognized losses)	75.7	95.8
Prepayments received	-100.3	-131.0
Liabilities from construction contracts	-24.6	-34.8

During the period under review sales over a certain period of time in the amount of € 55.3 million (previous year: € 74.9 million) were recognized.

Revenue from construction contracts include contract commissions amounting to € 0.7 million.

Of the € 34.8 million in liabilities from construction contracts as of December 31, 2022, € 15.5 million was invoiced in the fiscal year.

Liabilities from construction contracts in the amount of € 24.6 million were recognized. The realization as revenues is expected within the next 24 months.

Note 9 - Other receivables and other assets

Other receivables and other assets break down as follows:

	2023 in million €	2022 in million €
Prepayments made	2.7	7.7
Tax assets	0.8	0.4
Miscellaneous	1.7	1.5
	5.2	9.6

Tax assets for fiscal year 2023 essentially concern SINGULUS TECHNOLOGIES AG (€ 0.4 million) and result primarily from claims for VAT reimbursements. Prepayments to suppliers are generally short-term in nature. The creditworthiness of the individual suppliers is reviewed on a regular basis.

Note 10 - Inventories

The Group's inventories break down as follows:

	2023 in million €	2022 in million €
Raw materials, consumables and supplies	23.4	22.6
Work in process	10.4	13.1
Less allowances	-21.1	-21.7
	12.7	14.0

The inventory allowances relate to reductions in value in accordance with the "lower of cost or net realizable value" principle.

During the 2023 fiscal year, € 1.9 million in write-downs to the net realizable value of inventories were reported (previous year: € 4.3 million).

The carrying amount of inventories recognized at net realizable value amounts to € 1.6 million (previous year: € 3.1 million).

In the reporting year, gains of € 0.1 million were generated from the reversal of impairment losses (previous year: € 0.1 million). This resulted from the sale of impaired parts.

Note 11 - Intangible assets

In fiscal years 2023 and 2022, intangible assets developed as follows (all amounts in million €):

	Goodwill	Other intangible assets	Capitalized development costs	Total
Cost				
As of January 1, 2022	**21.7**	**76.5**	**120.6**	**218.8**
Additions	0.0	0.3	1.5	1.8
Disposals	0.0	0.0	0.0	0.0
As of December 31, 2022	**21.7**	**76.8**	**122.1**	**220.6**
Additions	0.0	0.1	1.5	1.6
Disposals	0.0	5.7	0.0	5.7
As of December 31, 2023	**21.7**	**71.2**	**123.5**	**216.4**
Amortization and impairment				
As of January 1, 2022	**15.0**	**75.8**	**116.4**	**207.2**
Additions to amortization (scheduled)	0.0	0.1	1.6	1.7
Additions to impairment losses (unscheduled)	0.0	0.0	0.0	0.0
Disposals	0.0	0.0	0.0	0.0
As of December 31, 2022	**15.0**	**75.9**	**117.9**	**208.9**
Additions to amortization (scheduled)	0.0	0.3	1.2	1.5
Additions to impairment losses (unscheduled)	0.0	0.0	0.0	0.0
Disposals	0.0	5.7	0.0	5.7
As of December 31, 2023	**15.0**	**70.5**	**119.1**	**204.7**
Carrying amounts December 31, 2022	**6.7**	**0.9**	**4.1**	**11.7**
Carrying amounts December 31, 2023	**6.7**	**0.7**	**4.4**	**11.8**

As of the balance sheet date, the Solar segment reported goodwill with a carrying amount of € 6.7 million (previous year: € 6.7 million). For further information on goodwill, please also refer to the comments under 4.5 “Goodwill” and 4.14 "Impairment of non-financial assets".

€ 1.5 million of the development costs incurred in fiscal year 2023 qualifies for recognition as an asset under IFRS (previous year: € 1.5 million). Amortization and impairment of capitalized development costs is recognized under research and development expenses in the consolidated income statement. Amortization of other intangible assets is allocated according to function within the consolidated income statement.

Note 12 - Property, plant & equipment

In fiscal years 2023 and 2022, property, plant and equipment developed as follows (all amounts in million €):

	Land, own buildings	Techn. equip. & mach.	Office & operating equip.	Total
Cost				
As of January 1, 2022	**16.8**	**8.1**	**9.6**	**34.5**
Additions	0.0	0.5	0.6	1.1
Disposals	-6.9	-0.6	-0.9	-8.4
As of December 31, 2022	**9.9**	**8.0**	**9.3**	**27.2**
Additions	0.0	0.8	1.0	1.8
Disposals	0.0	-0.3	-1.7	-2.0
As of December 31, 2023	**9.9**	**8.5**	**8.6**	**27.0**
Amortization and impairment				
As of January 1, 2022	**8.7**	**7.1**	**8.7**	**24.5**
Additions to amortization (scheduled)	0.9	0.4	0.5	1.8
Additions to amortization (unscheduled)	0.0	0.0	0.0	0.0
Disposals	-3.7	-1.3	-0.8	-5.8
As of December 31, 2022	**5.9**	**6.2**	**8.4**	**20.5**
Additions to amortization (scheduled)	0.5	0.3	0.4	1.2
Additions to amortization (unscheduled)	0.0	0.0	0.0	0.0
Disposals	0.0	-0.3	-1.5	-1.8
As of December 31, 2023	**6.4**	**6.2**	**7.3**	**19.9**
Carrying amounts December 31, 2022	**4.0**	**1.8**	**0.9**	**6.7**
Carrying amounts December 31, 2023	**3.5**	**2.3**	**1.3**	**7.1**

Note 13 - Other liabilities

Other liabilities are broken down as follows:

	2023 in million €	2022 in million €
Outstanding liabilities to personnel	2.7	1.5
Executive Board and employee bonuses	0.9	2.4
Outstanding invoices	0.7	1.1
Financial reporting, legal and consulting fees	0.6	2.1
Services to be provided	0.7	0.3
Miscellaneous	3.1	2.5
	8.7	9.9

In the fiscal year, commitments for performance-related payments of € 0.9 million (previous year: € 2.4 million) to members of the Executive Board, managing directors of subsidiaries, senior executives and employees were recognized as a liability. Of this amount, € 0.1 million related to share-based compensation. For further details, please refer to Note 15.

Note 14 - Prepayments received

	2023 in million €	2022 in million €
Prepayments from customers	5.8	8.0

Prepayments received as of December 31, 2023 mainly relate to advances for orders received by the Solar and Life Science segments for non-customer specific equipment, which are reported in inventories under work in process.

Note 15 - Share-based remuneration

The various share-based remuneration plans launched in previous years are described below:

In order to provide Executive Board members and senior executives with a long-term incentive, SINGULUS TECHNOLOGIES AG launched a phantom stock program. Each stock option under this program entitles the beneficiaries to subscribe to one virtual bearer share of the Company with a par value of € 1.00 each at the exercise price. The stock options were issued free of charge. The phantom shares are not settled in shares of the Company, but in cash. The cash settlement is determined on the basis of the difference between the exercise price and the relevant closing price.

Phantom Stock Program 2019 (PSP XV and PSP XVI)

By resolution dated April 11, 2019, the Supervisory Board resolved to issue 250,000 stock options to the Executive Board (PSP XV). A further 140,000 stock options were issued to senior executives (PSP XVI). The underlying phantom stock program corresponds to the 2015 program. The exercise price of these stock options is € 9.1000.

Phantom Stock Program 2020 (PSP XVII and PSP XVIII)

By resolution dated April 3, 2020, the Supervisory Board resolved to issue 350,000 stock options to the Executive Board (PSP XVII). A further 140,000 stock options were issued to senior executives (PSP XVIII). The underlying phantom stock program corresponds to the 2015 program. The exercise price of these stock options is € 3.9200.

Phantom Stock Program 2022 (PSP XIX and PSP XX)

By resolution dated June 17, 2022, the Supervisory Board resolved to issue 250,000 stock options to the Executive Board (PSP XIX). A further 114,000 stock options were issued to senior executives (PSP XX). The underlying phantom stock program corresponds to the 2015 program. The exercise price of these stock options is € 3.622.

Phantom Stock Program 2023 (PSP XXI and PSP XXII)

By resolution dated November 16, 2023, the Supervisory Board resolved to issue 250,000 stock options to the Executive Board (PSP XXI). A further 114,000 stock options were issued to senior executives (PSP XXII). The underlying phantom stock program corresponds to the 2015 program. The exercise price of these stock options is € 1.742.

The specific terms and conditions of the above phantom stock programs are as follows:

The term to maturity of the subscription right amounts to five years. The subscription rights can be exercised after lapse of the waiting period of two years at the earliest within a period of time of 14 trading days, beginning with the sixth trading day after the publication of the quarterly report for the first or third quarter, while during the first exercise period up to 25 % of the Phantom Stocks held by the beneficiary and within each additional exercise period semi-annually up to additional 25 % of subscription rights can be exercised.

For stock options issued under the Phantom Stock Programs, the reference price for all tranches as of the exercise date must be at least 15.0% above the exercise price.
If the subscription rights of an exercise tranche cannot be exercised during the respective exercise period because the share price target was not achieved, the Phantom Stocks of this exercise tranche can be exercised during the next or a following exercise period, if the share price target of the respective previous exercise tranche(s) were achieved in the next or a following reference period. The reference period is the period of five trading days from the publication of the quarterly report which is relevant for the beginning of the exercise period.

The development of the issued tranches is presented below:

	PSP XV		PSP XVI	
	2023		2023	
Change in stock options	Number of stock options	Average exercise price (€)	Number of stock options	Average exercise price (€)
Outstanding as of beginning of the Fiscal year	250,000	9.1000	94,000	9.1000
Issued in the fiscal year				
Revoked in the fiscal year	-	-	-	-
Exercised during the fiscal year	-	-	-	-
Expired in the fiscal year	250,000	-	94,000	-
Outstanding at the end of the fiscal year	-	9.1000	-	9.1000
Exercisable at the end of the fiscal year	-	-	-	-

	PSP XVII		PSP XVIII	
	2023		2023	
Change in stock options	Number of stock options	Average exercise price (€)	Number of stock options	Average exercise price (€)
Outstanding as of beginning of the Fiscal year	250,000	3.9200	94,000	3.9200
Issued in the fiscal year				
Revoked in the fiscal year	-	-	-	-
Exercised during the fiscal year	-	-	-	-
Expired in the fiscal year	-	-	10,000	-
Outstanding at the end of the fiscal year	250,000	3.9200	84,000	3.9200
Exercisable at the end of the fiscal year	187,500	-	63,000	-

Change in stock options	PSP XIX		PSP XX	
	2023		2023	
	Number of stock options	Average exercise price (€)	Number of stock options	Average exercise price (€)
For stock options issued under the Phantom Stock Programs, the reference price for all tranches as of the exercise date must be at least 15.0% above the exercise price. Fiscal year				
Issued in the fiscal year	250,000	3.622	114,000	3.622
Revoked in the fiscal year				
Exercised during the fiscal year				
Expired in the fiscal year				
Outstanding at the end of the fiscal year	250,000	3.622	114,000	3.622
Exercisable at the end of the fiscal year				

Change in stock options	PSP XXI		PSP XXII	
	2023		2023	
	Number of stock options	Average exercise price (€)	Number of stock options	Average exercise price (€)
For stock options issued under the Phantom Stock Programs, the reference price for all tranches as of the exercise date must be at least 15.0% above the exercise price. Fiscal year				
Issued in the fiscal year	250,000	1.742	114,000	1.742
Revoked in the fiscal year				
Exercised during the fiscal year				
Expired in the fiscal year				
Outstanding at the end of the fiscal year	250,000	1.742	114,000	1.742
Exercisable at the end of the fiscal year				

The subscription rights were priced according to a binomial model. This considers the limit of the payment to be made to an amount equal to three times the exercise price. Following parameter were used for the valuation of the subscription rights:

Tranche	PSP XVII	PSP XVIII	PSP XIX	PSP XX
Grant date	Apr. 3, 2020	Apr. 3, 2020	Jun. 6, 2022	June, 17, 2022
Exercise price	3.9200 €	3.9200 €	3.622 €	3.622 €
Dividend yield	0.00 %	0.00 %	0.00 %	0.00 %
Interest rate	2.97 %	2.97 %	1.96 %	1.96 %
Volatility of SINGULUS TECHNOLOGIES	58.71 %	58.71 %	74.26 %	74.26 %
Fair value of each stock option as of December 31, 2023	0.045 €	0.044 €	0.514 €	0.502 €

Tranche	PSP XXI	PSP XXII
Grant date	Nov. 16, 2023	Nov. 16, 2023
Exercise price	1.742 €	1.742 €
Dividend yield	0.00 %	0.00 %
Interest rate	1.89 %	1.89 %
Volatility of SINGULUS TECHNOLOGIES	77.55 %	77.55 %
Fair value of each stock option as of December 31, 2023	0.690 €	0.686 €

The forecast for the expected volatility was derived from the historic share price movements of the SINGULUS TECHNOLOGIES AG. The historic calculation period corresponds to the term to maturity of the subscription rights.

The issuance of phantom stocks in the year under review resulted in income amounting to € 59k (previous year: € 611k). As of the balance sheet date, the provisions for the phantom stocks programs amounted to € 137k (previous year: € 189k).

At the balance sheet date, the option had a weighted averaging remaining maturity of 3.3 years (previous year: 2.7 years).
The program was treated as a cash-settled share-based payment within the meaning of IFRS 2.

Note 16 - Financing liabilities from bond issue

The security bond (ISIN DE000A2AA5H5) with a volume of € 12.0 million was issued in July 2016. The term to maturity is ten years until July 22, 2026, the annual coupon amounts to 4.50 % and the redemption amount is 105 %. The bond is secured primarily through non-restricted cash (€ 6.1 million), receivables (€ 1.9 million), inventories (€ 8.8 million), property, plant and equipment (€ 1.1 million), and intangible assets (€ 4.4 million) of SINGULUS TECHNOLOGIES AG. The collateral is used if the Company violates the terms and conditions of the bond and the joint representative can therefore terminate the bond without notice. This would result in the liquidation of the collateral in favor of the bondholders. The above figures are the carrying amounts recognized in accordance with IFRS as of December 31, 2023. The joint representative checks the Company's compliance with the bond terms and conditions on a regular basis. In the event of a violation, the bond may be terminated early.

Financial liabilities accounted for at amortized costs resulted in a net loss of € 2.1 million in the period under review (previous year: € 2.0 million). The net losses are attributable to interest payments.
Please refer to Note 32.

Note 17 - Financial liabilities from loans

In order to secure the continued existence of the company and thus of the Group, the company signed an agreement with the major shareholder CNBM with effect from February 3, 2023 for the provision of liquid funds in the amount of € 20.0 million. In return, the company granted various options with respect to rights in connection with know-how in the area of solar technology. The total volume was received by the Company in two tranches in the amount of € 9.6 million in March 2023 and in the amount of € 10.4 million in early April 2023. Both tranches have a maturity of at least 18 months, but the disbursed funds have to be repaid in full or in part only upon request of the lender.

Note 18 - Pension provisions

Pension plans were granted by SINGULUS TECHNOLOGIES AG and by the previous HamaTech AG. They are defined benefit plans in both cases.

HamaTech AG's benefit obligations were transferred to SINGULUS TECHNOLOGIES AG in connection with the merger in fiscal year 2009. HamaTech AG's pension plan, which was transferred in the merger, was operated solely for former members of that company's Executive Board.

At SINGULUS TECHNOLOGIES AG company pension schemes in the form of direct pension commitments are provided for only some of the employees. On the one hand, beneficiaries are those employees who were employed at Leybold prior to the founding of the company in 1995 in accordance with the pension directives there in the versions dated January 1, 1969 and January 1, 1986 and, on the other hand, some former Executive Board members as well as a few employees who were granted corporate pension benefits based on an individual contract. New pension commitments have not been issued for some time. In particular, there are no pension plans open for new employees.

The existing pension obligations are all based on defined benefit plans. In a special case based on individual contractual arrangements, a one-time capital payment is promised when the age limit is reached, otherwise all benefits are in the form of lifetime pensions upon disability, age or death (to survivors). The amount of the pensions is contractually stipulated for the individual commitments. The commitments under the Leybold pension directives are based on the length of service in the company and the pensionable income; the total pension from the company pension and statutory pensions has an upper limit that may not exceed the last net pay received. The age limit is the last day on which the beneficiary is 65.

All benefits are financed internally by the regular accumulation of provisions. There are no plan assets within the meaning of IAS 19, nor are there other employers' pension insurance plans.
The company is not charged with taxes or social security contributions on the retirement benefits.
Other than the general risks arising from interest rates, inflation, longevity and case law, there are no special risks specific to the company for these pension commitments. The longevity risk is taken into account through the use of cohort tables when calculating the obligation. The cohort tables make appropriate assumptions, in particular with respect to the further increase in life expectancy in the future.

The risk of inflation is factored in sufficiently by a long-term estimate of 2.20 % p.a. when calculating the obligation based on current knowledge. Moreover, this risk primarily impacts the adjustment when reviewing current pensions. Currently, there are no known risks arising from labor law by virtue of supreme court rulings which would impact the commitments.

HamaTech AG's pension plan, which was transferred in the merger, was operated solely for former members of that company's Executive Board.

The pension plan is not covered by plan assets. Pension provisions are determined on the basis of an independent actuarial report. Pension benefits under the plan are based on a percentage of the employees' current pensionable compensation and their years of service.

The pension obligations and underlying assumptions are described below.

The change in SINGULUS TECHNOLOGIES AG's pension obligations as of December 31, 2023 and 2022 is presented in the following tables:

Change in pension obligations:	2023 in million €	2022 in million €
Present value at the beginning of the fiscal year	11.4	15.4
Recognized in profit or loss:		
Service cost	0.1	0.2
Interest expense	0.4	0.2
Recognized in other comprehensive income:		
Actuarial gains/losses from:		
financial assumptions	0.8	-3.9
demographic assumptions	0.0	0.0
experience-based adjustments	0.0	0.0
Miscellaneous		
Payments made	-0.6	-0.5
Present value at the end of the fiscal year	12.2	11.4

Net pension expenses break down as follows:

	2023 in million €	2022 in million €
Service cost	0.1	0.2
Interest expense	0.4	0.2
	0.5	0.4

While service cost was mainly recognized under selling costs and general and administrative expenses as well as cost of sales, interest expense was disclosed in the financial result.

The figures for the current and previous four periods are as follows:

	2023	2022	2021	2020	2019
	in million €	in million €	in million €	in million €	in million €
Present value of the defined benefit obligation	12.2	11.4	15.4	17.0	16.2

The assumptions underlying the calculation of the pension provision are as follows:

	2023	2022
Biometrics	Heubeck 2018 G actuarial tables	Heubeck 2018 G actuarial tables
Discount rate (future pensioners)	3.40 %	3.90 %
Discount rate (current pensioners)	3.40 %	3.90 %
Estimated future wage and salary increases	2.50 %	2.50 %
Estimated future pension increases	2.20 %	2.20 %

As of December 31, 2023 the weighted average term of the defined benefit obligation was 12.9 years.

Contributions by the Company to the statutory pension insurance system amounted to € 1.6 million in the year under review. This is a defined contribution plan.

In addition, members of the Executive Board received a defined-contribution company pension benefit financed by the company. € 0.4 million was paid out for this in the year under review.

Keeping all other assumptions constant, from a reasonable perspective, possible changes to one of the significant actuarial assumptions as of the reporting date would have affected the defined benefit obligation in the following amounts.

	Defined benefit obligation	
Effect in million €	Increase	Decrease
Discount rate (0.5 percentage point change)	-0.7	0.8
Estimated future wage and salary increases (0.25 percentage point change)	0.0	0.0
Estimated future pension increases (0.25 percentage point change)	0.3	-0.3
Life expectancy (+1 year change)	0.7	-

The premiums expected for fiscal year 2024 amount to € 0.6 million.

Note 19 - Other provisions

Other provisions developed as follows in the fiscal year:

	Jan. 1, 2023 in million €	Utilizations in million €	Reversals in million €	Additions in million €	Dec. 31, 2023 in million €
Warranties	7,4	-0,1	-1,5	1,6	7,4
Miscellaneous	0,6	0,0	0,0	0,0	0,6
	8,0	-0,1	-1,5	1,6	8,0

Provisions for warranty costs are recognized as a percentage of product cost. The percentages used are derived from experience for each product type and range between 2.75% and 4.00% (previous year: between 2.75% and 4.00 %). The guarantee period, and thus a possible utilization, ranges from 2 month to 12 months as of December 31, 2023.

Note 20 - Provisions for restructuring measures

Provisions for restructuring measures developed as follows in the fiscal year:

	Jan. 1, 2023 in million €	Additions in million €	Utilizations in million €	Reversals in million €	Dec. 31, 2023 in million €
Provisions for restructuring measures	2,1	0,0	-1,8	0,0	0,3

In connection with the relocation of activities at the Fürstenfeldbruck site to Kahl am Main in the previous year, restructuring expenses of € 2.1 million were incurred at the end of the fiscal year 2022. By the balance sheet date, € 1.8 million of the allocated provision had been used. The remainder of the provisions will presumably be used in the fiscal year 2024.

Note 21 - Shareholders’ equity

On September 21, 2017, SINGULUS TECHNOLOGIES AG disclosed in accordance with section 92 (1) AktG that half of its share capital had been eroded as of August 31, 2017. This loss was announced to the shareholders at an extraordinary shareholders' meeting on November 29, 2017. In the course of the extraordinary general meeting on October 29, 2021, pursuant to Art. 92 Para. 1 AktG the Executive Board again reported on the loss of the nominal capital pursuant to HGB of the parent Company.

As of December 31, 2023, the subscribed share capital amounted to € 8,896,527.00, divided into 8,896,527 bearer shares with a par value of € 1.00. Authorized capital 2023/1 amounted to € 4,448,263.00 as of the balance sheet date.

Other reserves

Other reserves include currency translation differences from translating the financial statements of foreign entities as well as actuarial gains and losses from pension commitments.

Capital reserves

The capital reserves amounting to € 19.8 million result from capital increases in previous years.

For information on the capital management principles, please refer to the Status Report.

Note 22 - Tax expense/tax income; deferred tax assets/deferred tax liabilities

The disclosures on income taxes for 2023 and 2022 are as follows:

	2023 in million €	2022 in million €
Current income taxes		
Germany	0.0	0.0
International	0.0	0.0
Sub-total	0.0	0.0
Deferred taxes		
Germany	-1.6	4.0
International	-0.1	0.0
Sub-total	-1.7	4.0
Total tax expense/income	-1.7	4.0

Pursuant to German tax law, the income taxes comprise corporate income tax, trade income tax and the solidarity surcharge.

Deferred tax assets relate to the following:

	2023 in million €	2022 in million €
Inventories	5.2	5.2
Pension provisions	1.4	1.2
Trades receivables	0.1	0.1
Goodwill	0.3	0.3
Deferred taxes on loss carryforwards	4.4	7.2
Fixed assets	0.2	0.4
Other liabilities	0.3	0.3
	11.9	14.7
Netting with deferred tax liabilities	-11.7	-14.6
Deferred tax assets	0.2	0.1

The deferred tax assets (before netting with deferred tax liabilities) of € 11.9 million were below the prior year's level (€ 14.7 million). After being offset against deferred tax liabilities, there were deferred tax assets in the amount of € 0.2 million (previous year: € 0.1 million).

Deferred tax assets developed as follows:

	2023 in million €	2022 in million €
Balance as of January 1	0.1	0.2
Recognized in other comprehensive income:		
Change in actuarial gains and losses from pension commitments	-0.2	1.1
Recognized through profit and loss:		
Change in temporary differences	-2.8	-0.5
Netting with deferred tax liabilities	2.7	-0.7
Balance as of December 31	0.2	0.1

As of December 31, 2023, SINGULUS TECHNOLOGIES AG (excl. foreign operating facilities) had preliminary corporate income tax loss carryforwards in the amount of € 240.9 million (previous year: € 229.7 million) and municipal trade tax loss carryforwards of € 232.9 million (previous year: € 221.7 million). In 2023, € 1.5 million was added to the € 18.9 million in interest carryforwards from previous years; these amounted to € 20.4 million as of December 31, 2023.

Deferred tax assets are recognized for all temporary differences and for all unused tax loss carryforwards to the extent that it is probable that taxable profit will be available against which the tax assets can be utilized. In accordance with IAS 12.34f in conjunction with IAS 12.31, in addition to the fact that this is 60% netted with deferred tax liabilities, there were no domestic deferred tax assets in the balance sheet due to the history of losses by SINGULUS TECHNOLOGIES AG.

In accordance with the disclosures under 4.14 Impairment of assets, the Company expects a positive business development and SINGULUS TECHNOLOGIES AG to utilize existing loss carryforwards to a limited extent in the next three fiscal years.

Deferred tax liabilities break down as follows:

	2023 in million €	2022 in million €
Receivables and liabilities from construction contracts	13.6	18.5
Capitalized development costs	1.0	0.9
	14.6	19.4
Netting with deferred tax assets	-11.7	-14.6
	2.9	4.8

Deferred tax liabilities total € 14.6 million (before being offset against deferred tax assets), lower than the previous year's figure (€ 19.4 million). This is a result of lower temporary differences for receivables and liabilities from construction contracts. After being offset against deferred tax assets, deferred tax liabilities amounted to € 2.9 million (previous year: € 4.8 million).

Deferred tax liabilities developed as follows:

	2023 in million €	2022 in million €
Balance as of January 1	4.8	1.9
Recognized through profit and loss:		
Change in temporary differences	-4.7	3.4
Netting with deferred tax assets	2.8	-0.5
Balance as of December 31	2.9	4.8

The amount of the temporary differences related to investments in subsidiaries for which no deferred tax liabilities have been recognized totaled € 0.3 million.

The effective tax rate in Germany (for corporate income tax, trade tax and the solidarity surcharge) was 29.13% (previous year: 29.13%). The effective tax rate is reconciled to the actual tax rate as follows:

	2023 in million €	2022 in million €
Consolidated earnings before taxes	-11.5	3.9
Anticipated tax *	-3.5	1.1
Adjustment of temporary differences and loss and interest carryforwards of the current period for which no deferred taxes were recognized	1.8	2.9
Other permanent differences	0.0	0.0
Current taxes *	-1.7	4.0

* A minus sign denotes tax income

The most recent tax field audit of SINGULUS TECHNOLOGIES AG covered the period from 2010 up to and including 2013.

Note 23 - Earnings per share

For the calculation of the undiluted earnings per share the earnings attributable to the bearers of the common shares of the parent company are divided by the weighted average number of shares in circulation during the period under review.

For the calculation of the diluted earnings per share the earnings attributable to the bearers of the common shares of the parent company are divided by the weighted average number of common shares in circulation during the period under review in addition to the weighted average number of shares resulting from the conversion of all potential common shares with dilution effect into common shares. Dilution effects were neither recorded in the period under review nor in the same period one year ago.

The following table includes the amounts applied for the calculation of the undiluted and diluted earnings:

	2023 in million €	2022 in million €
Profit attributable to owners of the parent for calculating basic earnings per share	-9.8	-0.1
Weighted average number of ordinary shares used to calculate basic earnings per share	8,896,527	8,896,527
Dilutive effect	-	-
Average weighted number of common share adjusted for dilutive effect	8,896,527	8,896,527

In the period from the balance sheet date until the drawing up of the consolidated financial statements there were no transactions of common shares or potential common shares.

Note 24 - Sales deductions and direct selling costs

The sales reductions include all cash discounts granted. Direct selling costs essentially include expenses for commissions.

Note 25 - Cost of materials

The cost of sales for fiscal year 2023 includes material costs of € 39.7 million (previous year: € 44.0 million).

Note 26 - Personnel expenses

The income statement for fiscal year 2023 includes personnel expenses in the amount of € 27.8 million (previous year: € 32.5 million). Expenses for wages and salaries in the year under review totaled € 22.7 million (previous year: € 25.6 million); expenses for social security contributions totaled € 4.6 million (previous year: € 4.8 million); post-employment expenses were € 0.4 million (previous year: € 2.1 million).

Note 27 - Depreciation and amortization

Depreciation and amortization expenses amounted to € 2.8 million (previous year: € 3.5 million).

Note 28 - General administrative expenses

Administrative expenses include management expenses, HR expenses and finance and accounting expenses as well as the premises and vehicle expenses attributable to such areas. Ongoing IT costs, legal and consulting fees, investor relations costs as well as costs of general meetings and the financial statements are also recognized in this item.

Note 29 - Research and development

Research and development costs relate not only to research and non-capitalizable development costs but also to the amortization of capitalized development costs of € 1.2 million (previous year: € 1.6 million). Totaling € 11.9 million in 2023, the expenditures for research and development (including development services included in cost of sales) were below the prior-year level (€ 11.7 million). € 1.5 million of these expenditures were capitalized (previous year: € 1.5 million). A total of € 10.4 million in expenditure for research and development was not capitalized and is reported in the income statement. The difference of € 3.5 million between the total non-capitalized expenditure for research and development (€ 10.4 million) and the amount reported in the income statement (€ 6.9 million) is included in the cost of sales.

The Company received national and EU grants amounting to € 0.4 million in the fiscal year (previous year: € 0.8 million).

Note 30 - Other operating income/expenses

In the reporting year, other operating income includes primarily income from the reversal of provisions and liabilities amounting to € 0.7 million (previous year: € 0.5 million).

Other operating expenses in the fiscal year primarily included foreign currency losses amounting to € 0.5 million (previous year: € 0.5 million).

Note 31 - Financial income and financing expenses

The financial income / financing expenses break down as follows:

	2023 in million €	2022 in million €
Financing income from the valuation of interest-free debt financing	0.7	0.0
Financing expenses from loans	-0.6	0.0
Interest expenses from leases	0.0	-0.1
Finance costs from the bond issue (including incidental expenses)	-0.5	-0.8
Interest expense from interest accrued on the pension provisions	-0.4	-0.2
Other financing expenses and income	-0.5	-0.9
	-1.3	-2.0

The financing costs from the bond issue result from the bonds issued in 2016.

Note 32 - Leases

As a lessee, the Group leases various assets, including real estate, motor vehicles and IT equipment.

The leases for IT equipment are of low value, meaning that no right-of-use assets or lease liabilities are recognized in accordance with IFRS 16.

i. Right-of-use assets

None of the right-of-use assets in connection with real estate leases meet the definition of investment property. These properties are reported under property, plant and equipment. For more details, please refer to Note 12.

in million €	Land and buildings	Operating and office equipment	Total
January 1, 2023	0.2	0.6	0.8
Depreciation charge	-0.1	-0.2	-0.3
Additions of right-of-use assets	0.1	0.4	0.5
Disposals of right-of-use assets	0.0	0.0	0.0
31. December 31, 2023	0.2	0.8	1.0

II. Amounts recognized in the income statements

2023	in million €
Interest expenses for lease liabilities	0.0
Expenses for leases with underlying assets of low value	0.1
Total	0.1

III. Amounts recognized in the statement of cash flows

2023	in million €
Total cash outflows for right-of-use assets	0.3
Total cash outflows for assets of low value	0.1

As of December 31, 2023, the future minimum payments arising from leases in the Group were:

	in million €
2024	0.4
2025	0.3
2026	0.2
2027 and thereafter	0.0
	0.9

The amounts recognized in the cash flow statement for expenses for short-term leases amount to € 0.4 million.

The amounts recognized in the income statement for expenses for short-term leases amount to € 0.4 million.

Note 33 - Events after the Balance Sheet Date

Composition of the Supervisory Board

Dr. rer. pol. Silke Landwehrmann has resigned from her office as a member of the Supervisory Board of SINGULUS TECHNOLOGIES AG for personal reasons as of January 17, 2024.
The Executive Board proposed a replacement member, Ms. Martina Rabe, Dipl. Bankbetriebswirtin, to the competent local court and the court appointed her as a member of the Supervisory Board with effect from

January 17, 2024 until the next Annual General Meeting.

The Company's Articles of Association were amended with effect from January 24, 2024. Accordingly, the Supervisory Board of the Company is to be expanded by a fourth member. At the proposal of the Supervisory Board, Mr. Denan Chu was elected to the Supervisory Board by the Annual General Meeting on December 14, 2023. The election of Mr. Chu became legally effective with the entry of the amendment to the Articles of Associationregarding the expansion of the Supervisory Board.
There were no further events after the end of the fiscal year requiring disclosure.

Note 34 - Related party disclosures

In accordance with IAS 24, those persons and companies which are able to exercise control or a significant influence over SINGULUS TECHNOLOGIES AG are deemed related parties. At the balance sheet date, the members of the Supervisory Board and the Executive Board of SINGULUS TECHNOLOGIES AG and associates were identified as related parties.

In accordance with the articles of incorporation, the Supervisory Board of SINGULUS TECHNOLOGIES AG has three members. During the business year 2023 the members of the Supervisory Board included:

Dr.-Ing. Wolfhard Leichnitz, Essen	Chairman
Dr. Silke Landwehrmann, Düsseldorf	Deputy Chairwoman
Dr. Changfeng Tu[1]	Member
Dr. rer. nat. Rolf Blessing, Trendelburg[2]	Member

On December 14, 2023, the Annual General Meeting resolved an amendment of the Articles of Association, which defines the expansion of the Supervisory Board to four members. At the same time, Mr. Denan Chu was appointed as fourth member of Supervisory Board. Mr. Denan Chu works full-time for the major shareholder CNBM. An objection was lodged against his election, which was not legally valid. Therefore, the appointment as a member of the Supervisory Board became effective in January 2024.

The above members of the Supervisory Board were elected for the period until the end of the annual shareholders' meeting that resolves the ratification of their actions for the fourth fiscal year following the beginning of their term of office; the fiscal year in which their term of office begins is not included in this calculation.

In addition to compensation for expenses, each member of the Supervisory Board is entitled to fixed remuneration of € 40 thousand for each full fiscal year of board membership. The Chairman receives twice this amount, the Deputy Chairwoman one and a half times this amount. Members of the Supervisory Board not sitting on the Board for the full business year will receive a pro-rata compensation.

For their work in the fiscal year, the Supervisory Board members are therefore entitled to fixed remuneration in accordance with the articles of incorporation of € 180k (previous year: € 180k).

Dr.-Ing. Leichnitz held a total of 245 shares in the Company as of December 31, 2023 (previous year: 245 shares). Dr Landwehrmann held a total of 2,000 shares in the Company as of December 31, 2023 (previous year: 2,000 shares).

Companies are deemed related parties if they are able to exert control or a significant influence over the reporting entity and hence SINGULUS TECHNOLOGIES AG (associates). With effect from September 20, 2018, Triumph Science and Technology Group Co., Ltd (a wholly owned subsidiary of China National Building Materials, Beijing, China, "CNBM") acquired 13.11% of shares in SINGULUS TECHNOLOGIES AG. In January 2019, CNBM acquired a further 3.64% of shares in the Company. Its shareholding of SINGULUS TECHNOLOGIES AG was thus 16.75%. At the same time, CNBM is currently the Company's largest customer and has therefore been classified as a related party within the meaning of IAS 24 since September 20, 2018.

[1] appointed by the ordinary Annual General Meeting on July 19, 2023
[2] Leaving on July 19, 2023 at the Annual General Meeting after the end of the contract term

During the period from January 1 to December 31, 2023, revenue amounting to € 12.2 million was generated from the manufacturing and delivery of equipment for CNBM and its subsidiaries. As of the balance sheet date, liabilities from production orders amounted to € 17.6 million. Outstanding liabilities from construction contracts with related parties include long-term contracts and are to be fulfilled up to 24 months after the reporting date. In addition, CNBM has provided the Company with financing of € 20.0 million in 2023 (see Note 17). At the same time, CNBM provides collateral in favor of the Company for a bank loan of € 10.0 million. None of the balances are collateralized.

The current occupations of Supervisory Board members are listed as follows:

	Occupation	Membership of other supervisory boards and similar oversight bodies
Dr.-Ing. Wolfhard Leichnitz	Construction engineer	None
Dr. Silke Landwehrmann[1]	Graduate businesswoman, CEO of Aumund Foundation Rheinberg	Wuppermann AG, Leverkusen, Deputy Chairwoman
Martina Rabe[2]	Dipl. Bank Business Economist, Senior Consultant at Norton Rose Fulbright LLP, Stuttgart	None
Dr. rer. nat. Rolf Blessing[3]	Dipl. physicist Managing Director of B.plus Beschichtungen Projekte Gutachten, Bad Karlshafen	None
Dr. Changfeng Tu[4]	Lawyer	None
Denan Chu[5]	Engineer (mechanics / electronics) Board Secretary, General Counsel and Chief Compliance Officer at Triumph Science & Technology Group Co. Ltd., Peking	Board Member of China National Equipment Group Corporation

In the business year 2023 the Executive Board was comprised of the following members:

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[1] Dismissed by order of the Aschaffenburg Local Court on January 17, 2024; see also information on events after the reporting date
[2] Appointed by order of the Aschaffenburg Local Court on January 17, 2024; see also information on events after the reporting date
[3] Leaving on July 19, 2023 at the Annual General Meeting after the end of the contract term
[4] appointed by the ordinary Annual General Meeting on July 19, 2023
[5] At the proposal of the Supervisory Board, elected to the Supervisory Board by the Annual General Meeting on December 14, 2023.

Dr.-Ing. Stefan Rinck	Chief Executive Officer
Dipl.-Oec. Markus Ehret	Chief Financial Officer

The total remuneration received by the Executive Board in the reporting period was as follows:

2023	Fixed remuneration	Other compensation	Variable remuneration	Components with long-term incentive	Total
	in '000 €	in '000 €	in '000 €	in '000 €	in '000 €
Dr.-Ing. Stefan Rinck	440	52	106	104	702
Dipl.-Oec. Markus Ehret	300	34	72	69	475
	740	86	178	173	1.177

The remuneration of the Executive Board for the previous year is broken down as follows:

2022	Fixed remuneration	Other compensation	Variable remuneration	Components with long-term incentive	Total
	in '000 €	in '000 €	in '000 €	in '000 €	in '000 €
Dr.-Ing. Stefan Rinck	440	48	88	226	802
Dipl.-Oec. Markus Ehret	300	32	160	151	643
Dr. rer. nat. Christian Strahberger[1]	250	5	50	0	305
	990	85	298	377	1.750

Members of the Executive Board receive a defined-contribution company pension benefit financed by the Company. The Company grants Executive Board members an annual pension contribution amounting to a certain percentage of their respective gross annual fixed remuneration. This amounted to 59.97 % for Dr.-Ing. Stefan Rinck from January 1, 2012 and 31.58 % for Mr. Markus Ehret. The annual pension contributions for the company paid in the year 2023 amounted to T€ 359 (previous year: T€ 447), with T€ 264 (previous year: T€ 264) attributable to Dr.-Ing. Stefan Rinck and T€ 95 (previous year: T€ 95) attributable to Mr. Markus Ehret.

Former members of the Executive Board of SINGULUS TECHNOLOGIES AG received total remuneration of € 0.5 million in the fiscal year. As of December 31, 2023, the provisions for pension claims for former board members stood at € 5.6 million.

In addition, the members of the Executive Board held the following number of shares in SINGULUS TECHNOLOGIES AG from their own purchases as of the fiscal year-end:

	2023	2022
	shares	shares
Dr.-Ing. Stefan Rinck	122	122
Dipl.-Oec. Markus Ehret	43	43
	165	165

[1] Left as of October 31, 2022

Note 35 - Disclosures on shareholdings

	Equity interest %	Shareholders' equity in '000 €	Net income/ loss in '000 €
Germany			
SINGULUS **CIS** Solar Tec GmbH, Kahl am Main, Germany	100	9	-2
SINGULUS New Heterojunction Technologies GmbH, Kahl am Main, Germany	100	-320	9
International *			
SINGULUS TECHNOLOGIES Inc., Windsor, **USA**	100	8,966	-601
SINGULUS TECHNOLOGIES **MOCVD Inc.**, Windsor, USA	100	-659	0
SINGULUS TECHNOLOGIES **ASIA Pacific** Pte. Ltd., Singapore	100	2,295	758
SINGULUS TECHNOLOGIES **LATIN AMERICA** Ltda., Sao Paolo, Brazil	98.8	-5,871	-186
SINGULUS TECHNOLOGIES **FRANCE** S.A.R.L., Sausheim, France	100	318	-32
SINGULUS TECHNOLOGIES **TAIWAN** Ltd. Taipeh, Taiwan	100	-1,820	82
SINGULUS TECHNOLOGIES SHANGHAI Co. Ltd ., Shanghai, China	100	-594	-232
STEAG **HamaTech Asia** Ltd. Hong Kong, China	100	0	0
HamaTech USA Inc., Austin/Texas, USA	100	-1,158	-71

* Equity and net income/loss were taken from the IFRS annual financial statements

SINGULUS TECHNOLOGIES Inc., Windsor, USA, wholly owns SINGULUS TECHNOLOGIES MOCVD Inc.

1.2% of the interest in SINGULUS TECHNOLOGIES LATIN AMERICA Ltda. is held by New Heterojunction Technologies GmbH.

STEAG HamaTech Asia Ltd. discontinued its operating business in April 2003.

Note 36 - Financial risk management

The financial liabilities included in the consolidated financial statements mainly relate to the bond placed in 2016 (see Note 16) and the provision of cash and cash equivalents received from the major shareholder CNBM in the fiscal year (see Note 17). The Group has various financial assets such as trade receivables and cash and short-term deposits, which arise directly from its operations.

In accordance with group policy, in fiscal year 2023 no derivatives trading took place nor will take place in the future for speculative purposes.

The operating and financing activities can essentially give rise to interest rate, credit, liquidity and foreign currency risks.
The individual risks are described in greater detail below. Additional remarks may be found in the risk report within the Status Report.

<u>Foreign currency risk</u>

Foreign currency risks from operations abroad are assessed as part of a risk analysis. Some sales of the SINGULUS TECHNOLOGIES Group are subject to the US dollar (USD) currency risk. Risks from foreign currencies are continually assessed as part the risk management system.

The following table shows the sensitivity of consolidated earnings before taxes (due to the change in the fair values of monetary assets and liabilities) and of consolidated equity (due to the changes in fair values of forward exchange contracts recognized in other comprehensive income) to a change in the USD/€ exchange rate generally possible based on reasonable judgment. All other factors remain unchanged.

	Price change of USD	Effect on earnings before taxes	Effect on Shareholders' equity
		in million €	in million €
2023	+10 %	-0.6	0.0
	-10 %	0.5	0.0
2022	+10 %	-0.2	0.0
	-10 %	0.1	0.0

The effect of potential changes in the USD exchange rate on SINGULUS TECHNOLOGIES' earnings results from bank balances, unhedged trade receivables and payables as well as unhedged intragroup receivables and payables denominated in USD. As of the balance sheet date, the net value of these items amounted to USD 0.4 million.

Liquidity risk

The processing of the major orders as scheduled in 2024 and 2025 will be critical for the Company's future solvency. In particular, the Company is dependent on the major Chinese customer CNBM in this regard. The management also expects further order intake and thus additional cash and cash equivalents from prepayments for new projects. In addition, the maintenance of the debt financing components by the major shareholder CNBM is essential for maintaining solvency during this period.

The Group still has access to bank guarantee lines in the amount of € 20.8 million. € 3.2 million of these had been drawn down as of the end of the fiscal year. Cash and cash equivalents (€ 3.2 million) have been deposited as security for these loan commitments until the contract is fulfilled. For further details, please refer to Note 4.

The table below summarizes the maturity profile of the Group's financial liabilities as of December 31, 2023. The disclosures are made on the basis of the contractual, non-discounted payments.

Fiscal year ended December 31, 2023	Payable on demand	Up to 3 months	3 to 12 months	1 to 5 years	More than 5 years	Total
	in million €	in million €	in million €	in million €	in million €	in million €
Bond repayment	0.0	0.0	0.0	11.8	0.0	11.8
Bond interest	0.0	0.2	0.0	0.0	0.0	0.2
Liabilities from loans	0.0	0.0	29.3	0.0	0.0	29.3
Other liabilities	1.6	2.5	4.6	0.0	0.0	8.7
Accounts payable	6.9	1.9	0.0	0.1	0.0	8.9
	8.5	4.6	33.9	11.9	0.0	58.9

Fiscal year ended December 31, 2022	Payable on demand	Up to 3 months	3 to 12 months	1 to 5 years	More than 5 years	Total
	in million €	in million €	in million €	in million €	in million €	in million €
Bond repayment	0.0	0.0	0.0	11.1	0.0	11.1
Bond interest	0.0	0.2	0.0	0.0	0.0	0.2
Liabilities from loans	0.0	0.0	0.0	10.0	0.0	10.0
Other liabilities	0.5	2.9	6.5	0.0	0.0	9.9
Accounts payable	2.3	7.5	0.1	0.0	0.0	9.9
	2.8	10.6	6.6	21.1	0.0	41.1

Interest rate risk

The Group is exposed to the risk of fluctuations in market interest rates. A shift in the yield curve of +/- 50 bp would not have any significant impact on the Group's earnings before taxes.

Credit risk

The credit risk is the risk of financial losses if a customer or contractual party to a financial instrument fails to meet its contractual obligations. The credit risk generally arises from trade receivables and the Group's receivables from construction contracts and other receivables. The Group uses export credit insurance as the primary instrument to hedge against specific country risks. Customers' creditworthiness and payment history are continually monitored and corresponding credit limits are set. In addition, risks in individual cases are limited where possible through credit insurance, bank guarantees and retention of title. From the current perspective, the Group assumes sufficient coverage of the receivables default risk.

On the basis of expected credit losses in accordance with IFRS 9, loss allowances are recognized for unsecured trade receivables according to the following probabilities of default. The effect on earnings as of the end of the year amounted to € 0.0 million (previous year: € 0.0 million).

Fiscal year as of December 31, 2023

	Carrying amount in million €	Estimated loss rate (weighted average)
Not overdue	2.1	0.00 %
1-30 days overdue	0.6	0.10 %
31-60 days overdue	0.1	0.63 %
61-90 days overdue	0.0	0.89 %
91-180 days overdue	0.0	1.50 %
More than 180 days overdue	0.1	28.19 %
Total	2.9	

Fiscal year as of December 31, 2022

	Carrying amount in million €	Estimated loss rate (weighted average)
Not overdue	2.2	0.00 %
1-30 days overdue	0.2	0.10 %
31-60 days overdue	0.2	0.63 %
61-90 days overdue	0.0	0.89 %
91-180 days overdue	0.1	1.50 %
More than 180 days overdue	0.1	28.19 %
Total	2.8	

The future probability of default was derived from historical credit losses. Due to its business model, the Group has a limited number of customers and can thus ensure that it can estimate the credit losses of its individual customers. The risk has not changed materially since the first-time recognition of expected credit losses in accordance with IFRS 9.

For more information on the application of the expected credit loss model, please refer to Notes 6, 8 and 9.

Significance of the credit risk:

The carrying amounts of the financial assets and receivables from construction contracts (contract assets) correspond to the maximum credit risk. The Group's maximum credit risk as of the reporting date is presented below:

	2023	2022
	in million €	in million €
Cash and cash equivalents	11.5	18.7
Financial assets subject to restrictions on disposal	3.2	3.8
Trades receivables	2.9	2.8
Receivables from production contracts	17.2	10.4
Other receivables	5.2	9.6
	40.0	45.3

Capital management

The Group analyzes its capital based on the "net liquidity" (as the total of cash and cash equivalents, short-term deposits and financial assets subject to restrictions on disposal less the bond and interest-bearing loans). As of the end of the fiscal year, the net liquidity was as follows:

	2023	2022
	in million €	in million €
Cash and cash equivalents	11,5	18.7
Financial assets subject to restrictions on disposal	3.2	3.8
Financing liabilities from bond issue	-12.0	-11.3
Liabilities from loans	-29.3	-10.0
Net liquidity	-26.6	1.2

In order to identify liquidity risks at an early stage, cash flow forecasts are prepared every month on the basis of a three-month forecast horizon. The insolvency risk is thus reviewed on a regular basis.

Note 37 - Financial instruments

Fair values

The following table shows the carrying amounts and fair values of all financial instruments recognized in the consolidated financial statements by category. Cash and cash equivalents, restricted cash, trade receivables, other receivables, trade payables, liabilities from borrowings and other liabilities regularly have short remaining terms. The balance sheet figures approximate the fair values, taking into account the expected credit loss model and are thus not disclosed separately.

		Carrying amount		Fair values	
		2023	2022	2023	2022
	Measurement method	in million €	in million €	in million €	in million €
Financial assets					
Cash and cash equivalents **	AC	11.5	18.7		
Financial assets subject to restrictions on disposal**	AC	3.2	3.8		
Trade receivables **	AC	2.9	2.8		
Other receivables	AC	5.2	10.4		
Financial liabilities					
Bond*	AC	12.0	11.3	8.1	5.3
Liabilities from loans	AC	29.3	10.0		
Trade payables**	AC	8.9	9.9		
Other liabilities	AC	8.7	9.9		
Total	AC	81.7	75.9		

Abbreviations:

AC:	Amortized costs (financial assets and liabilities measured at amortized cost)

The fair value of the exchange-listed bond equals the market price as of the balance sheet date plus the carrying amount of accrued interest liabilities as of the balance sheet date.

The maximum credit risk is reflected in the carrying amounts of the financial assets and liabilities.
The table below shows changes in liabilities held for financing purposes.

	As of January 1, 2023 in million €	Addition /disposal in million €	Cash flows for interest and principal payments in million €	As of December 31, 2023 in million €
Bond	11.1	0.7	0.0	11.8
Interest	0.2	0.5	-0.5	0.2
Liabilities from loans	10.0	19.7	-0.4	29.3
Leases	0.8	0.5	-0.3	1.0
	22.1	21.4	-1.2	42.3

Note 38 - Headcount

In the fiscal year, the Company had an annual average of 296 (previous year: 331) permanent employees. The annual average distribution of employees (FTEs) by functional area in the fiscal year is presented below:

	2023	2022
Assembly, production and logistics	73	99
Development	98	94
Sales	89	96
Administration (excluding Executive Board members)	36	42
	296	331

The Group had 292 employees as of December 31, 2023 (previous year: 321).

Note 39 - Auditor's fees (disclosures pursuant to Art. 314 Para. 1 No. 9 HGB)

In the year under review, SINGULUS TECHNOLOGIES AG and its subsidiaries were charged the following fees by the auditor of the consolidated financial statements:

	2023 in '000 €	2022 in '000 €
a) for the audit of the financial statements	556	433
b) other	0	0
Total	556	433

The fee for Baker Tilly GmbH & Co. KG Wirtschaftsprüfungsgesellschaft's auditing services related to the audit of the annual and consolidated financial statements.
Of the expenses of € 556 thousand, € 459 thousand relate to auditor fees for 2023, € 110 thousand to auditor fees for 2022 and € 13 thousand to amounts of unutilized provisions for 2022 that were released to income.

Note 40 - Corporate governance

The Executive Board and the Supervisory Board made the declaration required under Art. 161 AktG in May 2023 and have made it available to shareholders on a permanent basis on the Company's website at https://www.singulus.com/en/corporate-governance/.

Note 41 - Publication

The Executive Board of the SINGULUS TECHNOLOGIES AG prepared the consolidated financial statements as of December 31, 2023 on March 29, 2024, submitted the prepared financial statements to the Supervisory Board for review and approval and released them for publication.

Kahl am Main, March 29, 2024

SINGULUS TECHNOLOGIES AG

The Executive Board

Dr.-Ing. Stefan Rinck   Dipl.-Oec. Markus Ehret

AUDIT REPORT OF THE INDEPENDENT AUDITOR

To Singulus Technologies AG, Kahl am Main

NOTE ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND THE COMBINED MANAGEMENT REPORT

Audit opinion

We have audited the Consolidated Financial Statements of Singulus Technologies AG and its subsidiaries (the Group), which comprise the Consolidated Balance Sheet as at December 31, 2023, and the Consolidated Income Statement and Consolidated Statement of Comprehensive Income, Consolidated Statement of Changes in Equity and Consolidated Statement of Cash Flows for the financial year from January 1 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 of Singulus Technologies AG for the financial year from January 1 to December 31, 2023. In accordance with German legal requirements, we have not audited the content of the components of the combined Management Report mentioned in the "Other information" section of our auditor's report.

According to our assessment based on the knowledge gained during the audit:

- the accompanying Consolidated Financial Statements comply, in all material respects, with the IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e para. 1 German Commercial Code (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 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 suitably presents the opportunities and risks of future development. Our audit opinion on the combined Management Report does not extend to the content of the components of the combined Management Report mentioned in the "Other information" section.

In accordance with Section 322 para. 3 sentence 1 of the German Commercial Code (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 opinion

We conducted our audit of the Consolidated Financial Statements and of the combined Management Report in accordance with Section 317 German Commercial Code (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 para. 2 lit. f) of the EU Audit Regulation, we declare that we have not provided any non-audit services prohibited under Article 5 para. 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.

Significant uncertainty in connection with going concern (also key audit matter)

Facts and problem

We first refer to the information in section “4. Significant accounting principles” of the notes to the Consolidated Financial Statements as well as in the sections “Risk report” and “Outlook for the financial years 2024, 2025 and 2026” of the combined Management Report, in which the legal representatives of Singulus Technologies AG describe that the company’s liquidity situation has improved in the financial year 2023 but has not yet fully normalized and there may be a need for additional financing in the short term.

There, the legal representatives of Singulus Technologies AG state that the Singulus Technologies Group depends to a large extent on the future development of business activities with a few, large customers, both in terms of achieving the expected financial indicators and the further liquidity development in the financial year 2024 and on the financial support of the major shareholder Triumph Science & Technologies Co. Ltd., Beijing/China, (Triumph). Sufficient liquidity of the company and the group in the next 24 months after the end of the financial year 2023 can only be maintained if the planning can be implemented during this period. The main prerequisite here is the acquisition of further orders with an order value of EUR 284.2 million in the forecast period. Furthermore, the repayment of the Super Senior Loan in the amount of EUR 4.0 million must be guaranteed in December 2024 from the financial resources generated by the company.

As set out in the aforementioned sections of the annex and the combined Management Report, these events and circumstances, together with the other matters set out there, indicate the existence of material uncertainties that may raise significant doubts about the company’s ability to continue as a going concern and which pose risks that threaten its continued existence within the meaning of Section 322 para. 2 sentence 3 German Commercial Code (HGB).

The assessment of the appropriateness of the assumed going concern assumption was therefore a particularly important audit matter for us as part of our audit.

Audit procedure according to Article 10 para. 2 lit. c) ii) EU Audit Regulation and findings

As part of the audit, we identified the appropriateness of the assumption of going concern and the appropriate presentation of the material uncertainty in connection with going concern as a significant risk and carried out the following audit procedures, among others:

We first analyzed the current liquidity situation of the parent company and the group, taking into account the measures already implemented in 2023. Based on the knowledge gained here, we looked at liquidity planning in the forecast period in a second step. The basis of this liquidity planning is the group’s current two-year plan, on the basis of which we assessed whether the Management Board’s assessment of the ability of Singulus Technologies AG and the group to continue as a going concern is appropriate. To do this, we first gained an understanding of the planning process and discussed the important planning assumptions with those responsible. In this context, we assessed the design and establishment of controls integrated into the planning process and checked the planning for formal consistency (computational accuracy, correct implementation of the underlying premises). Based on this, we compared the income planning (in particular the appropriateness of the sales forecast) with existing contracts with customers and checked the plausibility of the planning of the main cost types. Finally, we assessed the key assumptions of sales planning based on selected projects and their implementation. In this context, our audit also included the assessment of planning fidelity.

We have also convinced ourselves of the implementation of the measures planned in the forecast period to ensure sufficient liquidity for Singulus Technologies AG and the Group. In detail:

- To secure liquidity, Singulus Technologies AG has had a loan of EUR 10.0 million available from the Bank of Shanghai since May 2022. The repayment of the loan is guaranteed by the China National Building Material Group Corporation, Beijing/China, (CNBM), the parent company of the main Chinese shareholder Triumph. The term of the agreement was initially 12 months and was extended by a further 12 months until May 9, 2024 with effect from January 31, 2023, subject to the occurrence of conditions precedent. The Management Board expects the extension of this loan in a timely manner with the support of the guarantor CNBM.

- Furthermore, in a contract dated February 3, 2023, the company received a loan with a volume of EUR 20.0 million from China Building Material International Technology Investment Co. Limited, Hong Kong/China, (CBMITI), a sister company of the main shareholder Triumph. The loan was disbursed in two tranches on February 6, 2023 in the amount of EUR 9.6 million and on March 27, 2023 in the amount of EUR 10.4 million. The disbursed funds have a minimum availability period of 18 months from the disbursement date, so that CBMITI is entitled to call the loans granted in whole or in part from August 4, 2024 or September 28, 2024. With the contract dated October 10, 2023, an amount of EUR 10.0 million from this agreement was converted into a further loan from the Bank of Shanghai, which has a term of 12 months from the date of drawing by the company and is expected to mature in April 2025.

- In order to cover the above-mentioned financial liabilities that are due in the forecast period, we were presented with a declaration from the main shareholder Triumph, according to which it guarantees until March 31, 2025 that the company will be able to meet its financial obligations with regard to the above-mentioned obligations.

We do not issue a separate audit opinion on these matters. Based on the results of our audit, we believe that the premise of going concern used by the legal representatives is appropriate.

Our opinions on the Consolidated Financial Statements and the combined Management Report are not modified in relation to this matter.

Other particularly important audit matters in the audit of the Consolidated Financial Statements

Particularly important audit matters are those matters that, in our professional judgment, are most significant in our audit of the Consolidated Financial Statements for the financial year dated January 1 until December 31, 2023. These matters were taken into account in connection with our audit of the Consolidated Financial Statements as a whole and in forming our opinion thereon; we do not issue a separate audit opinion on these matters. In addition to the matter described in the “Material uncertainty related to going concern” section, we have identified the following matters as particularly important audit matters to be disclosed in our audit report:

Revenue realization for production orders

Facts and problem

The sales realized over a period of time from construction contracts amounts to EUR 55.3 million in the financial year 2023. The Singulus Technologies Group recognizes revenue from construction contracts when a performance obligation is fulfilled through the transfer of a promised good to a customer and the customer has acquired control over this asset.

When revenue is recognized over a period of time, the revenue and the partial profit contributions received are recorded according to the degree of completion of the order. The prerequisite for this is that the results from the respective order can be reliably estimated. In addition, there must be a right to payment for the (partial) services provided.

The accounting for construction contracts is therefore complex and subject to discretion. Estimation uncertainties exist in particular with regard to the expectation of the total contract costs, which are based on continuously updated plans, as a basis for determining the degree of completion (cost-to-cost method). The agreements made with customers contain extensive contractual provisions.

Due to the design of the contractual agreements and the scope for discretion when assessing the criteria for assessing the timing of the transfer of control, there is a risk for the Consolidated Financial Statements that the sales and results from construction contracts are incorrectly allocated to the financial years and that impending losses from construction contracts are not recognized in a timely manner.

Audit procedure and findings

Based on our understanding of processes, we assessed the design and establishment as well as the effectiveness of identified internal controls, particularly with regard to determining the degree of completion of individual projects. As part of our audit, we also assessed the accounting of construction contracts selected from a risk-oriented perspective.

To do this, we coordinated the order value for the selected production orders with the corresponding contracts and randomly checked the allocation of the actual costs to the respective projects. We also tracked the recording of contract changes for selected production orders.

In addition, we focused our audit on assessing the legal representatives' interpretation of the criteria for revenue recognition over time. To this end, we assessed selected new production contracts concluded in the financial year on the basis of a risk-oriented selection.

For contracts concluded in the financial year, we compared the actual costs with the expectation of the total contract costs incurred in the prior year in order to be able to assess the general quality of the planning.

For randomly selected contracts, we assessed the appropriateness of significant discretionary decisions, such as estimating the costs still to be incurred. We discussed the selected contracts, including existing risks, with the relevant contact persons of the company (e.g. the Management Board, sales management, controlling and project managers), analyzed their updated order calculations, including the changes in the planned production costs, and the respective stage of completion, and assessed the related documents (e.g. contracts, acceptance reports). Building on the knowledge previously obtained, we finally assessed the appropriate determination of the respective degree of completion achieved as well as the accounting and profit and loss calculations.

We have acknowledged the effects of value-enhancing events on sales.

The approach of Singulus Technologies AG to recognizing sales for production orders is appropriate.

Reference to further information

For information on the accounting and valuation principles used, please refer to note 4.4 of the notes to the Consolidated Financial Statements. Information on the amount ofreported revenue from construction contracts can be found in the notes to the Consoli-dated Financial Statements under note 8.

Recognition and assessment of development costs

Facts and problem

The capitalized development costs reported under intangible assets amount to EUR 4.4 million as at December 31, 2023, of which EUR 3.1 million relate to the “Solar” segment and EUR 0.7 million to the “Life Science” segment and EUR 0.6 million can be assigned to the “Semiconductors” segment. The Singulus Group capitalizes development costs at their acquisition or production costs, provided the requirements of IAS 38.57 are met.

Once the asset becomes usable, the capitalized development costs are depreciated over a period of five years.

The Singulus Group uses profitability calculations (project calculations) to demonstrate the requirements according to IAS 38.57 (d). The respective capital value of the development project is calculated based on certain planned values for sales/coverage contributions that can be assigned to a development project and using a company-specific discount rate.

The impairment test and the determination of the recoverable amount of the capitalized development costs are carried out using updated project calculations. In addition, an additional impairment test is carried out for the capitalized development work allocated to the “Solar” segment at a higher level as part of the impairment test for the goodwill of the “Solar” segment.

Determining the achievable amount based on project calculations includes estimates of the future contributions to success of the individual projects and is complex and discretionary. This includes, among other things, the expected sales and earnings contributions of the projects and the discount rate used. There is a risk for the financial statements that the requirements for capitalization according to IAS 38.57 are not met and that ex- isting impairments were not recognized as at the reporting date.

Audit procedure and findings

Based on our understanding of the process, we assessed the design and establishment of identified internal controls with regard to the criteria for initial recognition and the review of the respective recoverability of capitalized development costs in subsequent periods.

For development costs capitalized for the first time, we verified the assumptions of the legal representatives regarding the fulfillment of the recognition criteria by inspecting the company’s internal records (e.g. release protocols, approval for development, project calculations) and by discussing the development projects with the relevant contact persons of the company (e.g. the Management Board, Controlling and those responsible for the project). In addition, we coordinated the project calculations with the corresponding details of the overall company planning.

As part of the review of the recoverability of the capitalized development costs, we compared the development of deliberately selected projects in the current financial year with the prior year's planning and coordinated the updated project calculations with the corresponding details of the overall company planning.

We also assessed the appropriateness of the discount rates used.

In addition, we assessed whether the impairment test for the goodwill of the "Solar" segment resulted in any indication of further impairment of the capitalized development costs allocated to this segment (we refer to our explanations on the impairment of goodwill).

The Singulus Group's approach to capitalizing development costs is appropriate. The determination of the manufacturing costs when capitalizing development costs for the first time and the determination of the recoverable amount when subsequently measuring the capitalized development costs are appropriate.

Reference to further information

For information on the accounting and valuation principles used, please refer to note 4.6 of the notes to the Consolidated Financial Statements. Information on the amount of capitalized development costs can be found in the notes to the Consolidated Financial Statements under note 11.

Other information

The legal representatives and the Supervisory Board are responsible for the other information. The other information includes the following components of the combined Management Report:

- the declaration on corporate governance according to Section 289f para. 1 German Commercial Code (HGB) with all components contained in the section "Declaration on corporate governance according to §289f or Section 315d HGB", and
- the information not included in the Management Report in the sections "Internal control system in the functional areas", "Statement on the appropriateness and effectiveness of RMS and ICS" and "Environment and sustainability".

The other information also includes the annual report expected to be made available to us after the date of this auditor's report. The other information does not include the Consolidated Financial Statements, the audited information in the combined Management Report or our associated auditor's report.

Our opinions on the Consolidated Financial Statements and the combined Management Report do not cover the other information and accordingly we do not express an opinion or any other form of audit conclusion thereon.

In connection with our audit, we have a responsibility to read the other information and to assess whether the other information

- has material discrepancies with the Annual Financial Statements, the combined Management Report or our knowledge obtained during the audit or
- otherwise appears to be materially misrepresented.

Responsibility of the legal representatives and the Supervisory Board for the Consolidated Financial Statements and the combined Management Report

The legal representatives are responsible for the preparation of the Consolidated Financial Statements that comply, in all material respects, with the IFRS as applicable in the EU and the additional German statutory provisions to be applied in accordance with Section 315e para. 1 German Commercial Code (HGB), and that the Consolidated Financial Statements under compliance with these regulations convey a true and fair view of the Group's net assets, financial position and results of operations. In addition, the legal representatives are responsible for the internal controls they have determined to be necessary to enable the preparation of Consolidated Financial Statements that are free from material misstatement, whether due to fraud (i.e. accounting manipulation or financial loss) or error.

When preparing the Consolidated Financial Statements, the legal representatives are responsible for assessing the ability of the company to continue business operations. They are also responsible for disclosing issues relating to the company being a going concern, if relevant. 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.

In addition, the legal representatives are responsible for the preparation of the combined Management Report, which as a whole provides an accurate picture of the position of the company, is consistent with the Consolidated Financial Statements in all material respects, complies with German legal requirements and accurately presents the opportunities and risks of future development. Furthermore, the legal representatives are responsible for the precautions and measures (systems) that they deemed necessary to enable the preparation of a combined Management Report in accordance with the applicable German statutory provisions and to be able to provide sufficient suitable evidence for the statements in the combined Management Report.

The Supervisory Board is responsible for monitoring the Group's accounting process for the preparation of the Consolidated Financial Statements and the combined Management Report.

Responsibilities of the auditor for the audit of the Consolidated Financial Statements and of the combined Management Report

Our objective is to obtain sufficient certainty as to whether the Consolidated Financial Statements as a whole are free from material misrepresentation, whether intended or unintentional and whether the combined Management Report as a whole gives an accurate picture of the position of the Group and, in all material matters, is in line with the Consolidated Financial Statements as well as with the findings of the audit, and complies with German legal requirements and presents the opportunities and risks of future development accurately, as well as issuing an auditor's report that includes our audit opinion on the Consolidated Financial Statements and the combined Management Report.

Sufficient security is a high level of security, but no guarantee that an audit carried out in accordance with Section 317 of the German Commercial Code and the EU Audit Regulation and in compliance with the German principles of proper auditing established by the Institute of Auditors (IDW) will always reveal a material misrepresentation. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of addressees taken on the basis of these Consolidated Financial Statements and combined Management Report.

During the audit, we exercise due discretion and maintain a critical attitude. Furthermore:

- we identify and assess the risks of material misstatements in the Consolidated Financial Statements and the combined Management Report due to fraud or errors, plan and carry out audit procedures in response to these risks, and obtain audit evidence that is sufficient and appropriate to serve as a basis for our audit 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, because fraud involves collusion, forgery, intentional omissions, misleading representations or may include the overriding of internal controls.

- we gain an understanding of the internal control system relevant to the audit of the Consolidated Financial Statements and the precautions and measures relevant to the audit of the combined Management Report in order to plan audit procedures that are appropriate in the given circumstances, but not with the aim of providing an audit opinion on the effectiveness of these systems.

- we assess the appropriateness of the accounting methods used by the legal representatives as well as the acceptability of the estimated values presented by the legal representatives and related information.

- we draw conclusions about the appropriateness of the going concern accounting principle applied by the legal representatives and, on the basis of the audit evidence obtained, whether there is any material uncertainty in connection with events or circumstances, that may raise significant doubts about the ability of the Group to continue as a going concern. If we come to the conclusion that there is material uncertainty, we are obligated to draw attention to the relevant information in the Consolidated Financial Statements and in the combined Management Report in the auditor’s report or, if this information is inappropriate, to modify our respective audit opinion. We draw our conclusions based on the audit evidence obtained up to the date of our auditor’s report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- we assess the overall presentation, structure and content of the Consolidated Financial Statements, including the disclosures, and whether the Consolidated Financial Statements represent the underlying transactions and events in a manner that the Consolidated Financial Statements give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with IFRS as adopted by the EU, and the additional requirements of German law in accordance with Section 315e para. 1 German Commercial Code (HGB).

- we obtain sufficient appropriate audit evidence for the accounting information of the companies or business activities within the Group in order to express audit opinions on the Consolidated Financial Statements and on the combined Management Report. We are responsible for the direction, supervision and performance of the audit of the Consolidated Financial Statements. We bear sole responsibility for our audit opinions.

- we assess the consistency of the combined Management Report with the Consolidated Financial Statements, its legal compliance and the view of the position of the Group that it provides.

- we perform audit procedures on the future-oriented information presented by the legal representatives in the combined Management Report. On the basis of sufficient suitable audit evidence, we particularly review the significant assumptions on which the future-oriented information is based by the legal representatives and assess whether the future-oriented information was properly derived from these assumptions. We do not issue an independent audit opinion on the future-oriented information or the underlying assumptions. There is a considerable unavoidable risk that future events will differ materially from the future-oriented statements.

We discuss 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 will make a statement to those responsible for monitoring that we have complied with the relevant independence requirements and will discuss with them all relationships and other matters that may reasonably be expected to affect our independence and, if relevant, the actions taken or protective measures taken to eliminate threats to independence.

From the matters that we discussed with those responsible for monitoring, we determine those matters that were most significant in the audit of the Consolidated Financial Statements for the current reporting period and are therefore the particularly important audit matters. We describe these matters in the auditor's report, unless law or other legal requirements preclude public disclosure of the matter.

OTHER STATUTORY AND OTHER LEGAL REQUIREMENTS

Note on the audit of the electronic reproductions of the Consolidated Financial Statements and the combined Management Report prepared for disclosure purposes in accordance with Section 317 para. 3a German Commercial Code (HGB)

Declaration of non-issuance of an audit opinion

We were commissioned in accordance with Section 317 para. 3a German Commercial Code (HGB) to obtain reasonable assurance about whether the reproduction of the Annual Financial Statements and the combined Management Report (hereinafter also referred to as "ESEF documents") prepared for disclosure purposes complies in all material respects with the requirements of Section 328 para. 1 HGB for the electronic reporting format ("ESEF format").

We do not provide an audit opinion on the ESEF documents. Due to the significance of the matter described in the section "Basis for the explanation of failure to express an audit opinion", we were unable to obtain sufficient appropriate audit evidence to provide a basis for an opinion on the ESEF documents.

Basis for the explanation of failure to issue an audit opinion

Since the legal representatives did not submit any ESEF documents to us for audit at the time the auditor's report was issued, we do not issue an audit opinion on the ESEF documents.

Other information in accordance with Article 10 EU Audit Regulation

We were appointed by the court as auditors by the resolution of the annual general meeting on July 19, 2023. We were commissioned by the Supervisory Board on December 5, 2023. We have been working as the consolidated auditor of Singulus Technologies AG without interruption since the financial year 2022.

We declare that the opinions contained 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 AUDITOR'S REPORT

Our auditor's report must always be read in conjunction with the audited Consolidated Financial Statements and the audited combined Management Report.

RESPONSIBLE AUDITOR

The auditor responsible for the audit is Thomas Gloth.

Düsseldorf, March 30, 2024

Baker Tilly GmbH & Co. KG
Auditing company
(Düsseldorf)

Thomas Gloth Auditor	Jonas Hagen Auditor

▶ SILEX III

Wet Processing Systems for the Production of Solar Cells

Production systems from SINGULUS TECHNOLOGIES are designed for cell production with high throughput and low material and media consumption and enable an improvement in efficiency as well as savings in energy and raw materials. With high-performance production equipment, SINGULUS TECHNOLOGIES thus improves cell efficiency and reduces the manufacturing costs for high-performance solar cells.

SINGULUS TECHNOLOGIES AG

Balance Sheet as of Dezember 31, 2023

ASSETS	12/31/2023 EUR k	12/31/2023 EUR k	12/31/2022 EUR k	12/31/2022 EUR k
A. Fixed assets				
I. Intangible fixed assets				
1. Purchased industrial and similar rights and assets	750		1,025	
2. Goodwill	0		0	
3. Prepayments	24		19	
		774		1,044
II. Tangible fixed assets				
1. Land, land rights and buildings, including buildings on third-party land	3,330		4,139	
2. Plant and machinery	702		506	
3. Other equipment, operating and office equipment	613		480	
4. Prepayments	0	4,645	7	5,132
III. Long-term financial assets				
Shares in affiliates		6,541	6,540	
		11,960		**12,716**
B. Current assets				
I. Inventories				
1. Raw materials, consumables and supplies	8,803		6,684	
2. Work in progress	100,367		117,269	
3. Prepayments	2,698		7,737	
4. Prepayments received	-111,868	0	-131,690	0
II. Receivables and other assets				
1. Trade receivables - thereof with a maturity of more than one year EUR 0k (PY: EUR 89k)	1,834		1,334	
2. Receivables from affiliates	3,365		3,224	
3. Other assets	995	6,194	666	5,224
III. Cash and bank balances		**10,938**		**16,735**
		17,132		**21,959**
C. Prepaid expenses		**469**		**639**
D. Deficit not covered by equity		**115,518**		**115,605**
Total assets		**145,079**		**150,919**

EQUITY AND LIABILITIES

	12/31/2023		12/31/2022	
	EUR k	EUR k	EUR k	EUR k
A. Equity				
I. Subscribed capital		8,896		8,896
II. Capitalreserves		19,697		19,697
III. Balance sheet loss		-144,111		-144,198
IV. Deficit not covered by equity		115,518		115,605
		0		**0**
B. Provisions				
1. Provisions for pensions and similar obligations		14,986		15,135
2. Provisions for taxes		462		465
3. Other provisions		13,590		10,981
		29,038		**26,581**
C. Liabilities				
1. Bonds		12,600		12,600
2. Liabilities to credit institutions		10,000		10,000
3. Payments received on account of orders		52,695		84,784
4. Trade payables		8,199		7,513
5. Liabilities to affiliated companies		7,763		7,892
6. Other liabilities - thereof in relation to taxes EUR 324k (PY: EUR 552k) - thereof in relation to social security EUR 220k (PY: EUR 0)		24,784		1,549
		116,041		**124,338**
D. Deferred items		**0**		0
Total equity and liabilities		**145,079**		**150,919**

SINGULUS TECHNOLOGIES AG

Income Statement for the Period from January 1 to December 31, 2023

	2023		2022	
	EUR k	EUR k	EUR k	EUR k
1. Revenue		76,153		46,998
2. Increase (+) / decrease (-) in inventories in work in progress		-16,903		20,692
3. Own costs capitalized		0		0
4. Other operating income - thereof currency translation gains EUR 279k (PY: EUR 220k)		28,247		15,528
5. Cost of materials				
a) Cost of raw materials, consumables and supplies and of purchased merchandise	-20,595		-34,693	
b) Cost of purchased services	-12,382	-32,977	-11,155	-45,848
6. Personnel expenses				
a) Wages and salaries	-20,111		-24,615	
b) Social security, pension and other benefit costs - thereof for old-age pensions EUR 444k (PY: EUR 2,133k)	-4,247	-24,358	-5,975	-30,590
7. Amortization				
a) on intangible fixed assets and property, plant and equipment		-1,679		-1,702
b) on current assets, to the extent that these exceed the usual depreciation and amortization		-14,372		
8. Other operating expenses - thereof expenses from currency translation EUR 74k (PY: EUR 467k)		-12,700		-14,460
9. Income from investments		1,900		0
10. Income from long-term loans - thereof from affiliates EUR 119k (PY: EUR 234k)		119		234
11. Other interest and similar income - thereof from affiliates EUR 0k (PY: EUR 0k) - thereof income from discounting EUR 0k (PY: EUR 0k)		2		0
12. Write-downs of financial assets		-535		-100
13. Interest and similar expenses - thereof to affiliates EUR 823k (PY: EUR 821k) - thereof expenses from interest EUR 273k (PY: EUR 269k)		-2,770		-2,481
14. Tax income		-6		-9
15. Earnings after taxes		121		-11,738
16. Other taxes		-34		-36
17. Net profit for the year (PY: net loss)		**87**		**-11,774**
18. Retained earnings (PY: loss carryforward)		-144,198		-132,424
19. Withdrawals from other revenue reserves		0		0
20. Income from capital reduction		0		0
21. Balance sheet loss (PY: net profit)		**-144,111**		**-144,198**

Glossar

Photovoltaics

Amorphous Silicon (a-Si) Solar Cell: A type of thin-film solar cell that uses non-crystalline silicon, often used in consumer electronics and small-scale applications.

Cadmium Telluride (CdTe) Solar Cell: A thin-film solar cell technology that uses cadmium telluride as the semiconductor material, known for its low production costs.

Copper Indium Gallium Selenide (CIGS) Solar Cell: Another type of thin-film solar cell that uses a combination of copper, indium, gallium, and selenium as the semiconductor material, offering a good balance between efficiency and cost.

HJT (Heterojunction Technology): HJT is a solar cell technology that uses different layers of material with different band gaps to increase efficiency. This technology combines amorphous silicon with crystalline silicon to achieve higher efficiency.

IBC (Interdigitated Back Contact): IBC is an advanced solar cell technology in which the electrical contacts are located on the back side of the cell to minimize front side loss and maximize efficiency.

Inverter: A device that converts the direct current (DC) electricity generated by solar panels into alternating current (AC) electricity, which is used in most household appliances.

Maximum Power Point (MPP): The point on the current-voltage (I-V) curve where a solar cell or panel operates at its maximum efficiency and power output.

Monocrystalline Solar Cell: A type of solar cell made from a single crystal structure, known for its high efficiency.

Net Metering: A billing arrangement that allows solar panel owners to receive credit for excess electricity they generate and feed back into the grid.

PERC (Passivated Emitter Rear Cell): PERC is an advanced solar cell technology in which the rear side of the solar cell is passivated to improve efficiency. This technology has become a standard in the solar industry in recent years.

Perovskite Solar Cell: Perovskite solar cells are a promising and emerging type of solar cell that incorporate perovskite materials such as methylammonium lead iodide (MAPbI3). These materials have the potential to achieve high efficiencies and are comparatively inexpensive to manufacture. Perovskite solar cells are still in the research and development phase, but they have attracted the interest of the scientific community due to their rapid progress and high efficiency potential.

SHJ/HJT (Heterojunction Technology): HJT is a solar cell technology that uses different layers of material with different band gaps to increase efficiency. This technology combines amorphous silicon with crystalline silicon to achieve higher efficiency.

Photovoltaic (PV) Cell: A device that converts sunlight directly into electricity using the photovoltaic effect.

Polycrystalline Solar Cell: A type of solar cell made from multiple crystal structures, slightly less efficient but more cost-effective than monocrystalline cells.

Solar Efficiency: The percentage of sunlight converted into usable electrical energy by a solar cell or panel.

Solar Irradiance: The power per unit area received from the Sun in the form of electromagnetic radiation.

Solar Panel: A collection of solar cells that are used to generate electricity from sunlight.

Solar Spectrum: The distribution of electromagnetic radiation emitted by the Sun, ranging from infrared to ultraviolet wavelengths.

Tandem Cells: Tandem solar cells consist of multiple layers of different materials with different band gaps. These layers are stacked on top of each other to better utilize the spectrum of incoming sunlight. By combining materials with different absorption properties, tandem solar cells can achieve higher efficiencies than conventional solar cells.

Thin-Film Solar Cell: A solar cell made by depositing one or more thin layers of photovoltaic material on a substrate, known for its flexibility and versatility in applications.

Topcon (Tunnel Oxide Passivated Contact): Topcon is a solar cell technology in which the front and back sides of the cell are passivated with a thin oxide layer to reduce electrical resistance and increase efficiency.

Semiconductor

Advanced Packaging (RDL, UBM): Advanced packaging refers to advanced packaging technologies for semiconductor devices. RDL (redistribution layer) and UBM (under bump metal) are techniques used in these packaging processes to improve semiconductor device performance and reliability.

ALD (Atomic Layer Deposition): A process for producing extremely thin films by alternately introducing two gaseous starting materials into the reactor to create exactly one atomic layer of each substance.

Bonding: The process of connecting electronic components on a chip, often by tiny wires, to make an electrical connection.

Capacitor: An electronic device that can store electrical charge.

Carrier gas: A gas used in vapor deposition to support material transport and reactions.

Chip: A semiconductor component built into a package that provides electrical contacts for integration into circuits.

Cleaning: Cleaning is the process of removing contaminants from surfaces. In semiconductor manufacturing, cleaning surfaces is critical to ensure that no foreign particles or residues affect the performance of electronic components.

Clean Room: A room with strict controls for temperature, humidity, and particles used in semiconductor manufacturing.

Cluster Tool: A system that contains multiple process modules and is used for batch processes to provide cost and space savings.

CMOS (Complementary Metal Oxide Semiconductor): An important family of integrated circuits based on the use of complementary MOS transistors and known for their energy efficiency.

Compound semiconductors: Materials that have both conductive and insulating properties and are often used for specialized electronic applications.

CVD (Chemical Vapor Deposition): A process of depositing solid materials from a gaseous phase to form ultra-thin films on a substrate.

Deposition: The general process of depositing materials on a substrate, often by evaporation, sputtering, or chemical reactions.

Devices: Electronic components in a circuit, such as transistors, capacitors, or resistors.

Die: Abbreviation for diode-driven electronics, a technology used in the semiconductor industry.

DRAM (Dynamic Random Access Memory): A type of memory chip used for temporary data storage in computers.

Epitaxy: A crystal growth process in which a thin layer of a crystal is deposited on an existing crystal substrate. The atoms or molecules of the growing material arrange themselves in a regular structure that is influenced by the crystal structure of the substrate. This process is commonly used in the semiconductor industry to produce precisely defined layers for the fabrication of semiconductor devices.

Etching: Etching is a process in which material is removed from a surface, often through chemical reactions with an etchant. This process is used to create tiny structures in materials or to clean or modify surfaces.

FeRAM (Ferroelectric Random Access Memory): A non-volatile memory type that uses ferroelectric materials to store data.

Flash Memory: An electronic memory type that enables non-volatile storage and is commonly used in USB flash drives and memory cards.

Glovebox: A closed system used in semiconductor manufacturing to protect materials from contamination.

Heating: Heating is the process of heating materials to a specific temperature. In the semiconductor industry, heating is often used to activate materials, change crystal structures, or promote chemical reactions.

High-k Dielectric: A material with a high dielectric constant used as an insulator in integrated circuits.

High Moment Materials: High moment materials are magnetic materials with high magnetic moment density. They are used in applications such as magnetoresistive sensors and data storage devices to achieve high sensitivity and accuracy.

Inductor: An inductor is an electronic component that stores electrical energy in a magnetic field. When electric current flows through a wire in a coil, the coil creates a magnetic field around it. Inductors are used in many electronic circuits to control current, filter signals, or store energy.

Insulator: A material that does not conduct electricity and is therefore used to separate electrical components.

Integrated circuit: A complete electronic circuit integrated on a single chip.

Integrated inductors: Integrated inductors are electronic components that are integrated into circuits and can store electrical energy in a magnetic field. They are important for power supply in microchips and other electronic devices.

Integrated Voltage Regulator (Buck Converter): An integrated voltage regulator, also known as a buck converter, is an electronic component that reduces the input voltage to provide a constant output voltage for electronic circuits. This is important for energy efficiency in portable devices and other applications.

Light Emitting Diode: An electronic component that emits light when an electric current flows through it.

Magnetic Sensor (TMR, GMR, AMR): Magnetic sensors such as TMR (tunnel magnetoresistance), GMR (giant magnetoresistance), and AMR (anisotropic magnetoresistance) detect magnetic fields. They are used in various applications such as position sensing, in vehicles and electronic devices.

MBE (Molecular Beam Epitaxy): A method of epitaxy in which materials are deposited onto the substrate as molecular beams.

Memory chip: An integrated circuit that stores data, such as DRAM or flash memory.

MEMS (Microelectromechanical Systems): MEMS are microscopic mechanical and electronic components integrated on a chip. They are used in sensors, actuators and other applications to sense and control physical quantities such as pressure, acceleration and temperature.

MOCVD (Metalorganic Chemical Vapor Deposition): A CVD process that uses organometallic compounds to deposit materials. MOCVD is a process for depositing thin films of compound semiconductors from the vapor phase. Organometallic compounds are introduced into the reactor along with a carrier gas, where they undergo chemical reactions and deposit on the substrate. This process is often used in the manufacture of semiconductor devices such as LEDs and laser diodes.

MRAM (Magnetoresistive Random-Access Memory): Magnetoresistive Random-Access Memory (MRAM) is a nonvolatile memory technology based on the TMR effect MRAMstores data magnetically and is fast, energy efficient, and does not lose data in the event of a power failure. This makes it a promising storage solution for fast and energy-efficient applications.

NAND Flash Memory: A type of flash memory commonly used in SSDs and USB drives.

Nanometer: A measurement of lengths on the nanoscale, equal to one billionth of a meter.

Nanotechnology: The technology involved in manipulating materials at the nanometer scale.

Nonvolatile Memory: A type of memory that permanently stores data even without power conservation.

OLED (Organic Light-Emitting Diode): A type of light-emitting diode that uses organic compounds for light emission.

OVPD (Organic Vapor Phase Deposition): A process for the deposition of organic materials from the vapor phase.

PECVD (Plasma Enhanced Chemical Vapor Deposition): A CVD process that uses a plasma to assist in material deposition.

Planetary Rotation: A method of uniformly coating substrates by rotation in multiple axes.

Pre-Clean Process Modules: The pre-clean process module is a device used before the actual coating process. It is used to clean the substrate of contaminants and oxides to ensure a clean surface for subsequent coating. The pre-clean process is critical to ensure good adhesion of the deposited layers.

PVD (Physical Vapor Deposition): A process for depositing materials by evaporation or sputtering. Is a process in which materials are vaporized in a vacuum chamber and then deposited on a surface. This process is used to deposit thin films of materials such as metals on substrates.

RFID (Radio-Frequency Identification) chips: Chips used to wirelessly identify and track objects.

Rotating Substrate Module: The Rotating Substrate Module is a device that rotates the wafer during the deposition process. This rotation ensures that the deposited layers are evenly distributed over the surface of the wafer. This is critical to the homogeneity and quality of the deposited layers.

Silicon: A commonly used semiconductor material.

Semiconductor: Materials that exhibit electrical conductivity between conductive metals and non-conductive insulators, often used for electronic devices.

Sensor: A sensor detects physical, chemical or electrical signals from the environment and converts them into electrical signals. Sensors are used in a wide range of applications, from temperature measurement to motion detection in automobiles. They are critical for capturing and controlling data in various systems and devices.

Sputtering: or sputtering, is a physical deposition process in which atoms or molecules are removed from a solid and deposited onto another surface, often a substrate. This process is used to create the thinnest layers of materials on surfaces.

Substrate: A support material onto which other materials are deposited or applied.

TFH Readers & Writers (Thin-Film Heads): TFH readers and writers are specialized devices in hard drives responsible for reading and writing data. They use the thinnest magnetic films to record and reproduce information.

TFT (Thin-Film Transistor): A transistor used in flat panel displays and other applications.

Thermal Process Modules: A device that controls substrate temperature during deposition. Temperature plays an important role in the formation of crystal structures and the activation of chemical reactions during the coating process. Precise temperature control is used to achieve the desired coating properties.

TIMARIS: Vacuum Coating System for Semiconductors

TMR (Tunnel Magnetoresistance): Tunnel magnetoresistance (TMR) is an effect that occurs in magnetic materials, especially in thin films. It is commonly used in magnetoresistive sensors (such as hard disk heads and MRAM memories) to store data and in sensing technologies for precise measurements. The TMR effect is based on the change in electrical resistance in response to the relative alignment of magnetic moments in two layers. This effect is used in storage technology and sensing applications.

Transistors: Electronic switches used in circuits to amplify or control signals.

Wafer: A thin slice of semiconductor material used as the basis for manufacturing integrated circuits.

µLED: µLED stands for micro-LED and refers to a type of LED technology that contains tiny LEDs. These are used in displays, lighting and other applications to provide high brightness and energy efficiency.

Decorative Coating

Coating Thickness Measurement: The technique of precisely measuring the thickness of the deposited coating, often using methods such as ellipsometry, X-ray fluorescence analysis, or profilometry.

DECOLINE II: Green Metallizing Inline Production System for Sustainable Coating of 3D Parts with DECOLINE II

DLC (Diamond-Like Carbon) Coating: A decorative coating that produces a smooth, hard surface similar to that of diamonds. DLC coatings provide high hardness, abrasion resistance and chemical resistance.

Environmentally friendly metallized coatings: Coatings developed using environmentally sound methods and materials to address concerns related to non-recyclable materials and harmful chemicals.

Evaporation: The process by which a material is vaporized by heating in a vacuum and then condensing on the substrate to form a decorative coating.

Hard coating: A coating that hardens the surface and makes it more resistant to abrasion and scratches.

In-line production systems: Manufacturing systems designed for automated handling and coating of three-dimensional parts without requiring manual intervention.

Interference coating: A special technique that controls the thickness of layers to create interference effects that result in fascinating colored or iridescent surfaces.

Metallization equipment: machines and technologies used to apply metallized coatings to various surfaces.

Metallization: The process of applying a thin layer of metal to a substrate to give it a metallic appearance. This is often used for decorative purposes on plastics and other materials.

Multilayer coating: A decorative coating consisting of several successive layers of different materials to achieve specific color or gloss effects. This allows for a wide range of designs and styles.

PAINTLINE: Lacquering System for 3D Parts

Plasma activation: A pretreatment process in which the surface of a substrate is activated by plasma to improve the adhesion and durability of the coating applied to it.

POLYCOATER: Inline PVD/Sputtering System

PVD (Physical Vapor Deposition) Coating: A technique in which materials are deposited on the surface of a substrate by evaporation and condensation to impart decorative and functional properties.

Sputtering: A method in which material is detached from a target by ion bombardment and deposited onto the substrate. This process allows coating with a variety of materials, including metals and ceramics.

Sputtering: A PVD technique in which material is detached from a target by ion bombardment and deposited onto the substrate. This process allows precise control over coating thickness.

Vacuum Chamber: The space where the coating process takes place, which is evacuated to an extremely low pressure level to provide a controlled environment for the coating.

Wet Chemical

Anti-fog coating: This coating is applied to the contact lenses to reduce fogging. This is especially useful in environments with changing temperatures or high humidity.

Anti-reflective coating: An anti-reflective coating is used to reduce annoying light reflections on the surface of the contact lenses. This improves vision and comfort, especially with plastic lenses.

Cleaning: The process of removing contaminants, grease, oil and other residues from the surface of a material to prepare it for further processing steps.

Color or tint coating: Special layers of color or tint can be applied to contact lenses to change natural eye color or create cosmetic effects.

Deposit-resistant coating: This coating helps reduce the formation of deposits such as proteins or lipids on the contact lens surface. This keeps the lens clear and comfortable longer.

Electroplating: An electrochemical process in which a thinner layer of one metal is deposited onto the surface of another metal. This is often used to improve corrosion resistance, aesthetics, or electrical conductivity.

Etching: A process in which material is selectively removed to create specific patterns, shapes or designs on the surface. Etching is often used in the manufacture of printed circuit boards, microchips, and decorative metal parts.

Hirtizing: A special process in metalworking in which the material is subjected to heat treatment to improve its mechanical properties, such as hardness and strength.

Hydrophilic coating: Contact lenses can be coated with a hydrophilic coating to make the surface more comfortable for users. This coating makes the lenses more water-attractive, which helps them retain moisture better and sit more comfortably on the eye.

Inline and batch version: Different operating modes of the MEDLINE wet process system.
Inline version: process takes place continuously, ideal for high volume production.
Batch version: process takes place in discrete batches, suitable for specific or small-scale production.

KOH etching: A special etching process, uses potassium hydroxide (KOH) as the etching solution. This process is often used in the microelectronics industry to pattern or machine silicon substrates.

MATERIA: Advanced Cleaning System for Silicon (Solar & Semiconductor Application)

MEDLINE wet process system: A modular system from SINGULUS TECHNOLOGIES for wet chemical applications in medical fields.

Metal etching: A specific etching process. This process is specialized to etch metals with high precision and accuracy.

Modular System: A system consisting of independent, interchangeable modules that can be configured for different purposes.

Pharmaceutical and Healthcare: The areas of the pharmaceutical and healthcare industries.

Process and Plant Engineering: Technologies and systems used in production processes to accomplish specific tasks.

Research and development applications: Applications used to research and develop new products or technologies.

SILEX III: Modular Wet Processing System for Cleaning and Etching of High Performance Solar Cells

Texturing: The treatment of the surface of a material to give it a specific texture or structure, whether for decorative, functional or technical purposes.

UV protective coating: Contact lenses can be provided with a special coating that blocks harmful UV rays. This coating protects the eyes from the harmful effects of UV radiation.

Wet chemical applications: Processes in which chemical reactions occur in a liquid solution, typically for surface treatments in medical applications.

Sputtering

Atomic Layer Deposition (ALD): ALD is a specialized PVD technique that allows for extremely precise control over film thickness and composition. It works by alternately exposing the substrate to pairs of precursor gases that react to form a thin film one atomic layer at a time. ALD is used in the semiconductor industry and for applications requiring precise atomic-scale deposition.

Anti-Reflective (AR) – Coating: Reduction of reflection on glass surfaces. Through anti-reflective coating distracting reflections are removed.

BLULINE: Inline coating (sputtering) machine

Bonding: Bonding of disc halves

Chemical Vapor Deposition (CVD): While not technically a PVD method, CVD is often mentioned alongside PVD techniques. In CVD, chemical reactions occur in the gas phase to produce a solid film on a substrate. Unlike PVD, which involves physical processes, CVD relies on chemical reactions to deposit the material. It is used for depositing a wide range of materials, including semiconductors, ceramics, and various thin-film coatings.

Cleaning: Performed to prepare substrates for additional processing / coating.

Decorative Coatings: Brilliant layers on plastic parts.

Electron-beam coating: Electron beam coating" or "e-beam coating," is a vacuum coating technique that utilizes electron beams to deposit thin films of material onto a substrate. This method is a type of Physical Vapor Deposition (PVD) and is commonly used in various industries for applications that require precise and controlled deposition of thin films with specific properties.

Evaporation: In evaporation based PVD, a solid source material is heated to a high temperature within a vacuum chamber. This causes the source material to vaporize and form a vapor plume. The vaporized material then condenses onto a substrate to create a thin film. This technique is often used for depositing metals and other materials with low melting points.

GENERIS PVD: Inline sputtering system with horizontal substrate transport for e.g., solar cell, small glasses

HISTARIS PVD: Inline sputtering system with horizontal substrate transport for e.g., glass, CIGS, CdTe solar

Hydrophobic Coat (Easy Care Coating): Hydrophobic (water repellent) coating to prevent the adhesion of dust and other contaminants on the lens surface. The Hydrophobic Coat layer reduces the frequency of eyeglass lens cleaning during daily use.

Immersion Coating: Process by which the surface of an object is coated by immersion into a liquid.

Lacquering: Process by which the hard coat layer is applied during an immersion or spin coating process.

Magnetron Sputtering: This is a variation of sputtering that uses magnetic fields to enhance the efficiency and control of the sputtering process. Magnetron sputtering is commonly used for depositing thin films in electronics, optics, and architectural glass coatings.

Metallizing: Application (Sputtering)of a thin layer of metal (e.g., aluminum, gold, silver, silicon).

Metallizing refers to the process of applying a thin layer of metal onto a substrate or surface. This process is used in various industries and applications for a wide range of purposes, including enhancing the appearance of objects, providing corrosion resistance, improving electrical conductivity, and more.

Nano Deposition Technologies: Work area which comprises the application areas of the TIMARIS machine.

Nanometer: Unit of length, 0.000001 mm.

PECVD: Plasma Enhanced Chemical Vapor Deposition - process used to apply Hard Coat and Topcoat to eyeglass lenses. Plasma is used in this process to deconstruct complex gas molecules. The product of this reaction precipitates onto the surface of a substrate forming a thin, hard layer.

Phase change: Process during which the composition of a material is alternately converted between an amorphous and crystalline state.

POLYCOATER: Inline Sputtering system for 3d parts

PVD: PVD stands for Physical Vapor Deposition, which is a family of thin-film deposition techniques used in materials science and various industries. PVD methods are employed to deposit thin films of materials onto surfaces in a controlled and precise manner. These thin films can have a wide range of properties and applications, including improving the surface characteristics of materials or adding specific functionalities to them.

Reactive Sputtering: Reactive sputtering is a specialized thin-film deposition technique used in materials science and various industries to create compound thin films with specific properties. It is a variation of the conventional sputtering process, but it involves introducing a reactive gas into the sputtering chamber along with the inert gas (typically argon). The reactive gas chemically reacts with the sputtered target material, resulting in the formation of compound thin films.

SELENIUS: Inline evaporation system for large glass substrates

SKYLINE: Fully automated replication line for discs

Smart Cathode®: Patented sputter cathode for coating CD and DVD discs with highly uniform reflective layers. Also specially employed for the OPTICUS.

Solar layer: Active layer on Solar Cells.

SPACELINE: Fully automated replication line for DVD

Spin-Coating: A coating process in which liquids such as dyes or lacquers are spun onto the surface of an object.

Sputtering: The process by which a thin layer of metal or silicon is deposited onto a Sputtering is a physical process used in materials science and microfabrication to deposit thin films of material onto a substrate. It involves the removal of atoms or molecules from a solid target material through the bombardment of the target with high-energy particles. This process is widely employed in various industries, including semiconductor manufacturing, thin-film coating, and surface modification.

Sputter Cathode: In the context of sputtering, a "sputtering cathode" refers to the target material used in the sputtering process. The cathode is the electrode in a sputtering system that is subjected to bombardment by high-energy ions, typically generated from a plasma or ionized gas. When these ions strike the cathode (target material), they dislodge or sputter atoms or molecules from the cathode's surface, which are then deposited as a thin film on a substrate.

Substrate: The substrate is the surface onto which the thin film is to be deposited. It can be made of various materials, depending on the application, and is often a semiconductor wafer, glass, or another solid material.

STREAMLINE: Fully automated replication line for recordable discs

Target: The target material to be deposited as a thin film is called the "target." This target material is typically made of the substance you want to coat the substrate with, such as metals (e.g., aluminum, titanium), semiconductors (e.g., silicon), or dielectrics (e.g., oxides).

Thickness Control: The thickness of the deposited film can be controlled by adjusting the sputtering time or the power applied to the sputtering process. This allows for precise control of the film's thickness.

Thin Film Formation: The ejected atoms then condense and deposit on the substrate's surface, creating a thin film that has the same composition as the target material. The substrate's temperature can be controlled to optimize the film's adhesion and properties.

TIMARIS: Vacuum sputtering system which operates in accordance with TMR principles, designed for use in the semiconductor industry. Manufactures either MRAM wafers or future read-write heads for magnetic hard disc drives.

Uniformity: Consistency in the thickness of a layer applied to the surface of an object.

UV Curing: Drying or curing of adhesives or lacquers through exposure to ultraviolet light.

VISTARIS PVD: Inline sputtering system with vertical substrate transport for e.g., glass, CIGS, CdTe solar

Vacuum Chamber: The sputtering process takes place in a vacuum chamber to eliminate the presence of air and other contaminants. Maintaining a vacuum ensures that the sputtered atoms can travel without interference and adhere to the substrate.

Vacuum Coating: Vacuum coating, also known as thin-film deposition or vacuum deposition, is a process used to apply a thin layer of material onto a substrate's surface in a vacuum or low-pressure environment. This technique is widely used in various industries for a range of purposes, including improving the properties of surfaces, enhancing the appearance of products, and adding functionality to materials. Vacuum coating methods are employed to create thin films with specific characteristics, such as optical properties, electrical conductivity, and corrosion resistance.

Vaporization: Vacuum coating technology, e.g., for anti-reflective coating on ophthalmic lenses, where material is melted and evaporated in a vacuum.

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