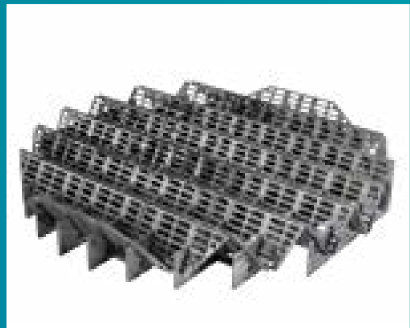
Annual Report 2023

sgl carbon



Key Figures 2023

€m	Footnote	2023	2022	Change
Financial performance				
Sales revenue		1,089.1	1,135.9	−4.1%
thereof outside Germany		74%	74%	-
thereof in Germany		26%	26%	-
EBITDApre	1)	168.4	172.8	−2.5%
Operating profit/loss (EBIT)		56.6	120.9	−53.2%
Result from continuing operations before income taxes		22.4	94.6	−76.3%
Consolidated net result (attributable to the shareholders of the parent company)		41.0	126.9	−67.7%
EBITDApre margin	2)	15.5%	15.2%	+0.3%-points
Return on capital employed (ROCE $_{\text{EBIT pre}}$)	3)	11.3%	11.3%	+0.0%-points
Earnings per share, basic (in €)		0.34	1.04	−67.3%
Net assets				
Equity attributable to the shareholders of the parent company		605.3	569.3	6.3%
Total assets		1,472.6	1,480.3	−0.5%
Net financial debt		115.8	170.8	−32.2%
Equity ratio	4)	41.1%	38.5%	+2.6%-points
Leverage Ratio	5)	0.7	1.0	30.0%
Headcount	6)	4,808	4,760	1.0%
Financial position				
Capital expenditures in intangible assets and property, plant and equipment		87.1	52.9	64.7%
Depreciation/amortization expense		58.9	60.8	−3.1%
Working capital		306.0	345.3	−11.4%
Free cash flow	7)	95.6	67.8	41.0%

1) Before one-off effects/non-recurring items of minus €52.9 million in 2023 and €8.9 million in 2022
2) EBITDApre to sales revenue
3) EBITpre to average capital employed (total of goodwill, other intangible assets, property, plant and equipment, investments accounted for At-Equity and net working capital)
4) Equity attributable to the shareholders of the parent company to total assets
5) Net debt to EBITDA pre
6) As of Dec. 31, including employees with fixed term contracts
7) Cash flow from operating activities (continuing operations) minus cash flow from investing activities (continuing operations)

Content

Letter from the Board of Management

Dr. Torsten Derr (Chief Executive Officer) Thomas Dippold (Chief Financial Officer)

Dear Shareholders,

2023 was a year of crises and the associated economic consequences. The Russian war of aggression continues, there is fighting in the Gaza Strip, the impact of the climate crisis are becoming increasingly more visible and geopolitical tensions are on the rise. Economically, we are seeing an environment of high inflation, rising interest rates and unsatisfactory economic development in many parts of the world.

This is an environment in which SGL Carbon has performed well. Despite partially restrained demand from some customer industries, persistently high prices and wage agreements and increasing uncertainty about future economic developments, we achieved our objectives for 2023. We can be proud of this result, considering the market environment, the industrial sector and the overall economic situation in which we operate.

Following revenue growth of approx. 23% in 2020 to 2022 and an increase in adjusted EBITDA of approx. 86%, the 2023 fiscal year was a year of stabilization and investment in the future. At €1,089.1 million, Group revenue in 2023 was slightly below the previous year's level (minus 4.1%) and adjusted EBITDA, a key operating figure, was in the middle of our expected range (€160 to 180 million) at €168.4 million. Free cash flow was €95.6 million at the end of 2023 (previous year: €67.8 million) and therefore significantly higher than originally forecast (outlook at previous year's level).

We achieved our Group targets despite the fact that demand from one of our most important sales markets, the wind industry, came to an almost complete standstill in 2023. Revenue and earnings in the Carbon Fibers business unit were also unsatisfactory (sales: €224.9 million, minus 35.2%, adjusted EBITDA: €7.2 million, -83.3%). By contrast, our other three business units performed better than expected. Revenue and earnings in Graphite Solutions, Process Technology and Composite Solutions are at an historically high level.

The Graphite Solutions business unit achieved an increase in revenue of 10.4% to €565.7 million and an EBITDA margin of 23.7% (previous year: 23.1%). This development is based on the targeted expansion of business with graphite components for the semiconductor industry. This is a market segment with estimated growth potential of more than 30% per year on average over the next few years, and a market in which we are already established as one of the leading suppliers. We will explain later how we intend to take part in this development. First, let’s take a quick look at our two smaller business units.

The Process Technology (PT) business unit has had an incredible success story over the past three years. While PT generated adjusted EBITDA of €3.4 million in 2020 with an EBITDA margin of 3.9%, adjusted EBITDA in 2023 amounted to €22.4 million with a margin of 17.5%. The Composite Solutions (CS) business unit showed a similar trend, even though posting a loss in 2020. The current high degree of automation of our production in Austria and the specialization in individual composite components for the automotive industry led to sales of €153.9 million in 2023 with an adjusted EBITDA margin of 14.4%. It should be noted that CS had to cope with the loss of revenue from the sale of the business in Gardena (USA) in the amount of around €30 million in 2023. Further details on Group and business unit level developments can be found in the Group management report in this annual report. SGL Carbon's balance sheet structure also continued to stabilize in 2023. At the end of 2023, we had an equity ratio of 41.1% (previous year: 38.4%) and net debt of €115.8 million (previous year: €170.8 million). We used 2023 to realign our financing structure, improve our maturity profile and thus further expand our financial ability to act.

In addition to stabilizing our business model, 2023 was a year of important investments and changes for the future. We invested a total of €87.1 million, almost two thirds of which went into the Graphite Solutions business unit and in particular into expanding production capacities for specialty graphite products for the semiconductor industry.

Innovative products for future-oriented markets

SGL Carbon has undergone a transformation in recent years. Not only are we in a better financial position, but our business model has also become more resilient. We want to help shape the future in industries that are important for the challenges ahead, such as climate change and digitization through innovative, cutting-edge carbon-based products.

While the automotive industry was our most important sales market in the past, it still accounts for around a quarter of our revenue, but our product diversity has increased. The Carbon Fibers (CF) business unit still supplies carbon fibers and fabrics to our automotive customers, but this is increasingly being supplemented by customer-specific composite fiber components such as battery boxes or leaf springs from our Composite Solutions business unit. There is demand for our products especially in climate-friendly vehicles. We also supply graphite gas diffusion membranes for hydrogen-powered vehicles with fuel cells.

In the second half of 2022, we successfully compensated for the available production capacity in the Carbon Fibers business unit due to the scheduled expiration of a supply contract with BMW with orders from the wind industry. Because of external factors within the wind power value chain, demand for carbon fibers from wind industry customers came to an almost complete standstill in 2023. High raw material and energy prices, increased interest rates combined with slow approval procedures currently impede construction of new wind farms. Sales and adjusted earnings of our Carbon Fibers business unit fell significantly in 2023 due to the low demand (see also the comments in the Segment Reporting section). A rapid expansion of offshore wind power is essential for the success of the energy transition and the European Green Deal. Since offshore wind energy is the main driver of the energy transition, we assume that our customers' demand for carbon fibers will pick up again once inventories within the value chain are reduced.

However, we cannot rely solely on the wind industry regaining strength. We are developing new applications with innovative carbon fiber products in the construction industry and in the area of green hydrogen storage in pressure vessels. For example, carbon fibers can replace steel products in the construction industry. Carbon fibers are more durable and significantly less concrete is required for the same stability, which also reduces CO_2 emissions.

In the future, the most important market for SGL Carbon will be the semiconductor industry. Over the past five years, the share of sales generated by these customers increased from around 7% to 24.0% at the Group level and will continue to grow over the next few years, especially in the silicon carbide-based semiconductor segment. These are primarily needed in electric vehicles because of their higher performance. Our Graphite Solutions business unit supplies customized graphite components for the production of silicon carbide wafers, which creates the basis for these high-performance semiconductors. In the 2024 fiscal year, we will invest around two thirds of our investment volume of up to €150 million in the expansion of production capacities for this market segment on a global level. As in previous years, we receive significant advance payments from our customers used to secure future production capacity in our plants – a win-win situation for both partners.

The Process Technology (PT) business unit, which manufactures special systems especially for corrosive production processes, also supplies systems for high-purity acids production for the semiconductor market thus establishing a new market segment. However, the chemical industry remains the most important customer for Process Technology's products and services.

In the long term, our goal is to use our innovative and customer-oriented products to serve the markets that will significantly reflect future trends such as climate-friendly mobility, renewable forms of energy and digitization.

Outlook

Three out of four business units are performing well. The Process Technology and Composite Solutions business units delivered an outstanding performance in the 2023 fiscal year with an adjusted EBITDA margin of 17.5% and 14.4% respectively. We expect to confirm this level in 2024. We anticipate continued growth in the Graphite Solutions business unit. The constant expansion of our production capacities for customers in the semiconductor industry creates the basis for future development.

Due to the ongoing weak demand from the wind market, we do not expect any improvement for the Carbon Fibers (CF) business unit. The newly developed applications for the construction industry or pressure vessels with carbon fiber sheathing are still under construction and cannot compensate for the lack of sales from the wind industry. This means that 2024 will be a challenging year for CF.

What do the different potentials for development in the individual business units mean for SGL Carbon? If economic conditions remain unchanged, we expect sales in the 2024 fiscal year to be almost on target with 2023 (2023: €1,089.1 million). Because of the expected negative earnings contribution from CF, we anticipate to generate adjusted earnings at Group level of between €160 - 170 million, despite the forecast growth of GS.

Fiscal year 2024 will certainly not be an easy one for SGL Carbon. The management and workforce work hard every day to achieve our goals and implement our growth prospects. We would like to take this opportunity to express our sincere thanks to all employees for their commitment and willingness to perform for our business.

Also, we would like to thank the Supervisory Board and the employee representatives for their support and continuous fair cooperation. Last but not least, thank you, dear shareholders, for your trust even in challenging times.

Kind regards

Dr. Torsten Derr
Chief Executive Officer

Thomas Dippold
Chief Financial Officer

Report of the Supervisory Board

Prof. Dr. Frank Richter, Chairman of the Supervisory Board

Dear Shareholders,

With the resignation of Dr. h.c. Susanne Klatten as Chairwoman of the Supervisory Board, I took over this important position on the Supervisory Board of SGL Carbon SE on May 9, 2023, by resolution of the Annual General Meeting. As the Managing Director of SKION GmbH, which holds 28.5% of the shares in SGL Carbon, I have more than three years' experience with the company and its development. I am happy to continue Mrs. Klatten's successful work as the representative of the company's largest single shareholder and to support the company on its future path.

Strengthened by the transformation of the last two years, SGL Carbon has confronted the challenges in 2023 and can look back on a successful fiscal year. In a difficult economic environment, the company confirmed its performance and achieved the targets set for 2023.

The ongoing war in Ukraine and the conflicts in the Middle East, the impacts of climate change and the geopolitical alienation between the US and China characterized 2023 socially and economically around the world. Economic consequences included persistently high inflation and price levels, further increases in interest rates and unsatisfactory overall economic growth in many regions of the world. Trade barriers between the US and China also made global trade more difficult. The use of artificial intelligence and the transformation towards a more sustainable industrial society presented additional challenges and opportunities for companies in many sectors.

The Supervisory Board closely monitored the financial development as well as the company's operational foundation. In addition to stabilizing financial performance, the focus in 2023 was on expanding business in attractive growth markets. By expanding its global production capacities in the graphite components area for the semiconductor industry, SGL Carbon secures the opportunity to participate in the future growth of this important industry for the global digitization process. Environmental and climate protection is one of the most important tasks of our time. The Supervisory Board supports the management's strategy of increasingly providing products for industries that support this mission. The Supervisory Board also promotes the company's own sustainability ambitions and goals. In 2023 for example, we built a CO_2-neutral biomass plant at our site in Lavradio. The aim is to reduce CO_2 emissions by 50% by the end of 2025 compared to the base year 2019.

On behalf of the entire Supervisory Board, I would like to take this opportunity to thank the Board of Management of SGL Carbon and all employees for their successful and dedicated work. I look forward to accompanying the further development of our company with my colleagues on the Supervisory Board.

Cooperation between the Board of Management and the Supervisory Board

In the reporting year, the Supervisory Board duly performed the duties incumbent upon it under the law, the Articles of Incorporation and the Rules of Procedure. Dr. Derr, as CEO of SGL, Carbon SE and Mr. Dippold, as CFO, were in close contact with the Supervisory Board.

In the reporting year, the Supervisory Board supported the Board of Management in an advisory capacity in six full plenary sessions and in meetings of the various committees, while carefully and continuously monitoring the conduct of business. In doing so, the Supervisory Board was always able to convince itself of the legality, practicality and propriety of the activities of the Board of Management. The Board of Management informed the Supervisory Board regularly, promptly and comprehensively in writing and verbally about the situation of the company and the material business events and projects. When law and the Articles of Incorporation stipulated that decisions had to be made by the Supervisory Board regarding individual transactions and projects of the Board of Management, the Supervisory Board passed a resolution after being involved at an early stage.

The Board of Management held talks with representatives of shareholders and employees in the run-up to the Supervisory Board meetings. The chairs of the committees also spoke to their colleagues on the Supervisory Board and members of the Board of Management in preparation for the committee meetings. During the Supervisory Board meetings, the Board of Management provided comprehensive and timely information — both verbally and through documents — on the items on the agenda. Deviations in the course of business from budgets and targets were explained in detail. The reasons for the deviations and the corresponding measures were discussed intensively. The members of the Supervisory Board and the committees had sufficient opportunity to critically examine the submitted documents and draft resolutions in the Supervisory Board and its committees. In addition, the Board of Management reported regularly on material business transactions, key financial figures during the year and how SGL Carbon was perceived on the financial markets.

Dr. Klatten, as chairwoman of the Supervisory Board, maintained regular and close dialog with Dr. Derr, as chairman of the Board of Management, and with Mr. Dippold, as CFO, regarding business development, planning and specific company-related issues. I seamlessly continued this exchange with the Board of Management after taking over as Chairman. The chairman of the Audit Committee also maintained close and regular exchanges of information with the Board of Management between committee meetings.

Topics covered in the plenary sessions of the Supervisory Board

The company's economic situation and the outlook for the fiscal year were discussed at the Supervisory Board's meetings in March, May, July, September and November. The regular topics of these meetings included the performance of operational and financial key figures, opportunities and risks as well as risk management including compliance risks. Regular and intensive discussions also focused on the strategic positioning, sustainability issues and the growth projects of the business units. Meetings were generally held in-person, with one Supervisory Board member joining the March meeting virtually. An additional meeting in June was held virtually and dealt in particular with the refinancing of the company by issuing a convertible bond as well as the performance of an audit review of the first half of 2023.

In the March meeting of the reporting year, the Supervisory Board discussed the final version of the Annual Financial Statements and the Consolidated Financial Statements for 2022 with the auditor and approved the Annual Report. The Board of Management also reported on the key events that shaped the good annual result for 2022 and the expected challenges for the 2023 fiscal year. The planned refinancing of the existing credit facility was one of the focal points of the meeting. A report was also made on the sale of business activities at the Pune (India) and Gardena (USA) sites. The emerging problems in the wind business were also the subject of the Board of Management report.
In addition, the Supervisory Board adopted the Board of Management's target achievement for 2022; details can be found in the remuneration report. Finally, the items for resolution for the Annual General Meeting scheduled for May 9, 2023, were approved.
At this meeting, the Supervisory Board also discussed the Nomination Committee's proposal to elect Prof. Dr. Richter as a new member of the Supervisory Board to succeed Dr. Klatten at the Annual General Meeting in May and, if elected, to propose him as a candidate for Chairman of the Supervisory Board. This proposal was unanimously approved by the Supervisory Board.
At this meeting, it was also decided to propose to the Annual General Meeting that an adjustment be made to the remuneration system for the Supervisory Board. The

remuneration of the Supervisory Board has not been adjusted since 2014, and the Chairwoman commissioned an external review of its appropriateness.
At this meeting, Dr. Klatten also reported on the extremely positive results of the efficiency audit conducted at the end of 2022.

At the meeting following the virtual Annual General Meeting in May, the first item on the agenda was the election of the new Chairman, and I gratefully accepted the election. In addition, the committees were constituted. Their composition can be found in the annual report. The Board of Management provided the Supervisory Board with an overview of current strategic projects and presented the results of the first quarter of the fiscal year. The positive financial figures and the improvement in the Group's equity ratio to 39.5% were highlighted. Only the Carbon Fibers (CF) business unit was unable to meet expectations due to the continuing weakness of the wind business and the loss of the BMW i3 sales, while the other three business units exceeded expectations. Gross debt decreased as a result of the repayment of a convertible bond. The Board of Management also presented initial thoughts on refinancing the corporate bond maturing in 2024.

At the virtual meeting in June, refinancing and, in particular, the possibility of issuing a new convertible bond was discussed. The Supervisory Board also authorized the Audit Committee to decide on the issuance of a convertible bond if there is a suitable market window and a corresponding submission by the Board of Management to the Supervisory Board.

At the July Supervisory Board meeting at the Meitingen site, the Board of Management provided an update on the business position and especially regarding the situation in the wind market, which still showed no signs of a quick recovery. Increasing energy prices also had a negative impact on the result; despite the circumstances, the Board of Management assumed that it would be able to remain within the communicated forecast.
At this meeting, the Supervisory Board had an in-depth discussion about the Board of Management's strategy in Asia and also heard from the heads of several regions. The Board of Management also presented expansion plans in the brake disc business (JV BSCCB) and discussed the results of an employee survey.

At the September meeting, the Supervisory Board focused on business development and the report on the first half of the year as well as the situation at the CF business unit and the measures taken by the Board of Management for the wind business. The impairment loss recognized in the Carbon Fibers business unit at the end of July was also discussed. The situation in the silicon carbide business was a key topic as well. Due to the high demand and customer prepayments, this business is developing extremely positively and is leading to significant capacity expansions at various locations to meet customer demand. Finally, a new skills matrix was approved for the Supervisory Board.

At the final meeting of the fiscal year in November, business development in 2023 was discussed. As in previous months, business development in the CF business unit was characterized by the challenges in the wind market, while the other business units continued to develop extremely well. The key financial ratios and, in particular, equity have improved further and reached a very good level. The Board of Management presented the new five-year plan at this meeting.
The updated declaration of conformity was adopted, and the company's corporate governance principles were confirmed. The Supervisory Board also approved the financial targets in addition to the personal targets for the Board of Management for 2024 and for the long-term incentive plan. The blackout periods for 2024 were also approved.

Activities of the committees

The committee chairs reported extensively on the work of the respective committees at the Supervisory Board meetings.

The Audit Committee met in March, September and November in the year under review. The auditor also attended all meetings that were held in person. In addition, the Audit Committee held a conference call in June in which it discussed, among other things, the current market environment and the placement of a new convertible bond. It also approved the issuance of such an instrument to the Supervisory Board based on prior authorization by the Supervisory Board.

The financial statements were also discussed in three telephone conferences with the Audit Committee prior to publication of the quarterly figures and the figures for the first six months of the year. Business development and the Group's risk position were discussed at all meetings of the Audit Committee.

The main topic at the March meeting was the discussion of SGL Carbon SE's Annual Financial Statements and the Consolidated Financial Statements for 2022, as well as the auditor's reports on them. In addition, the Audit Committee dealt with the non-financial

Group statement ("CSR Report"), the internal control system, significant compliance issues, the CSR Report, the status of implementation of new ESG reporting requirements and the non-audit services provided by the auditor. The Audit Committee also recommended to the Supervisory Board that KPMG be reappointed as auditors in the 2023 fiscal year.

By resolution of the Committee on June 5, 2023, the engagement of KPMG to review the interim consolidated financial statements and the interim Group management report of SGL Carbon SE for the first half of 2023 was approved.

One topic of the September meeting was the status of the implementation of the CSRD Directive. KPMG also presented the external perspective on the company's general CSRD readiness. The meeting also reviewed the audit of the financial statements for the past fiscal year based on defined criteria for measuring audit quality. KPMG presented a status report for non-audit services provided. The auditor described the status of planning for the audit of the annual and consolidated financial statements for 2023.

At its November meeting, the Audit Committee dealt in detail with the audit of the financial statements for the 2023 fiscal year. Likewise, an overview of non-audit services both rendered and proposed in 2023/24 was provided in order to ensure compliance with the fee cap and the independence of the auditor. The Internal Audit department reported on the results of audits, the implementation status of measures and the audit plan for 2023. From a compliance perspective, relationships with major shareholders and Supervisory Board members were also reported, and the Related Party Management Policy was explained. A status on material transactions with related parties (beyond material major shareholders) was provided. KPMG also explained the scope and results of the CSRD assurance readiness check.

The Personnel Committee focused on personnel issues in a total of four meetings (virtual in January and otherwise in-person). In the January meeting, the Board of Management members' preliminary target achievement was discussed, including in particular the fulfillment of personal targets. The March meeting of the Committee dealt with the Board of Management members' final target achievement with regard to their variable compensation, and a proposal was resolved for the full Supervisory Board. In view of the upcoming decision on the extension of the two Board of Management mandates in 2024, the September meeting generally discussed further cooperation and, in preparation, discussed an expert opinion on the appropriateness of the Board of Management remuneration commissioned by the Committee Chairman. There were no specific decisions to be made. At the November meeting, the financial (for the variable short- and long-term salary components) and personal targets for the Board of Management for the 2024 fiscal year were discussed with the latter, in particular the selection of the financial key figures appropriate for the 2024 variable salary components.

The Nominating Committee met once in person in March in the reporting year. The content of the meeting was the resolution to propose to the Supervisory Board that Prof. Dr. Frank Richter be proposed for election by the 2023 Annual General Meeting. The committee also confirmed its intention to propose Prof. Dr. Richter as a candidate for Chairman of the Supervisory Board in the event of his election by the Annual General Meeting.

In the reporting period, no conflicts of interest were reported by Supervisory Board members that would have been necessary to disclose immediately to the Supervisory Board.

Annual Financial Statements and Consolidated Financial Statements 2023

Both in the Audit Committee and in the plenary meeting in March 2024, the Supervisory Board verified that the accounting, the separate financial statements of SGL Carbon SE prepared pursuant to the German Commercial Code (Handelsgesetzbuch, HGB) and the Consolidated Financial Statements as of December 31, 2023, prepared pursuant to the stipulations of the International Financial Reporting Standards (IFRS) (as applicable within the European Union) as well as the Management Report of SGL Carbon SE and the Group were audited by KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, and provided with an unqualified audit opinion. The Supervisory Board had previously assured itself of the independence of the auditor and the persons acting on behalf of it, and commissioned the audit pursuant to the resolution of the Annual General Meeting on May 9, 2023. The audit reports on the Consolidated Financial Statements and the Annual Financial Statements were sent to us in good time. The Audit Committee dealt at length with these documents, as did the full Supervisory Board. The auditors attended the meetings of both the Audit Committee and the Supervisory Board, in which they provided advice on the Annual and Consolidated Financial Statements, reported on the audit and made themselves available for additional questions and information. Following presentation of the final results by the Audit Committee and our own review, there were no objections. The Supervisory Board approved the financial statements prepared by the Board of Management and thereby adopted the Annual Financial Statements. Since SGL Carbon SE's 2023 fiscal year ended with an accumulated loss after the net income for the financial year was offset against the loss carried forward from the previous year, no proposal by the Board of Management on the appropriation of profit had to be reviewed.

At its meeting in March 2024, the Supervisory Board also scrutinized the Report of the Supervisory Board, the Corporate Governance Declaration and the Corporate Governance and Compliance Report, the Remuneration Report and the disclosures pursuant to Sections 289a and 315a HGB. We refer to the corresponding disclosures in the Annual Report. The Supervisory Board and the Board of Management compiled the Remuneration Report and reviewed the other reports for completeness. To the extent that the reports were within their scope of competence, they also determined the accuracy of their content.

KPMG issued an unqualified limited assurance audit opinion for the separate non-financial Group Report (CSR Report). This means that, based on the audit procedures performed and the audit evidence obtained, no items came to light that would lead to the conclusion that the separate non-financial Group Report is in all material aspects not in compliance with Sections 315b, 315c in conjunction with 289c to 289e HGB.

In addition, based on its own examination, the report of the Audit Committee regarding its preparatory assessment and the audit opinion of KPMG, the Supervisory Board did not identify any reason to take issue with the correctness and appropriateness of the separate non-financial Group Report.

Meetings attended by

In the year under review, Supervisory Board members attended the meetings of the Supervisory Board and of committees of which they are members as follows:

	Plenary sessions of the SB (number of sessions / participation)	Committees of the SB (number of sessions / participation)	Summary (number of sessions / participation)
Dr. h.c. Susanne Klatten	1 / 1	3 / 3	4 / 4
Georg Denoke	6 / 6	4 / 4	10 / 10
Helmut Jodl	1 / 1	2 / 2	3 / 3
Ana Cruz	1 / 1	-	1 / 1
Edwin Eichler	6 / 6	1 / 1	7 / 7
Ingeborg Neumann	6 / 6	8 / 8	14 / 14
Prof. Dr. Frank Richter	5 / 5	2 / 2	7 / 7
Kathrin Bamberger	5 / 5	-	5 / 5
Markus Stettberger	6 / 6	5 / 5	11 / 11
Dieter Züllighofen	5 / 6	3 / 3	8 / 9
Axel Hemleb	5 / 5	2 / 2	7 / 7

Corporate Governance and Declaration of Conformity

At its meeting on November 30, 2023, the Supervisory Board scrutinized corporate governance issues and approved the Declaration of Compliance pursuant to Section 161 German Stock Corporation Act [Aktiengesetz, AktG]. In accordance with the German Corporate Governance Code, the declaration of conformity has been made permanently available on the company's website and is reproduced in the Corporate Governance Declaration of this Annual Report. You will also find further information on the Company's corporate governance there.

Personnel and functional changes in the Board of Management and the Supervisory Board

There were no personnel changes in the company's Board of Management during the reporting period. Changes were made to the Supervisory Board. Dr. Klatten stepped down from the Supervisory Board on May 9, 2023, as did Mr. Jodl and Ms. Cruz. Prof. Dr. Frank Richter, Ms. Bamberger and Mr. Hemleb were newly elected to the Supervisory Board. At the constituent meeting of the Supervisory Board following the Annual General Meeting on May 9, 2023, Dr. Richter was elected Chairman of the Supervisory Board.

Thanks from the Supervisory Board

The Supervisory Board would like to thank the Board of Management, the employees and the employee representatives of all Group companies for their work, without which it would not have been possible to meet the challenges in the corporate development of SGL Carbon in the 2023 fiscal year.

Wiesbaden, Germany, March 21, 2024

The Supervisory Board

Prof. Dr. Frank Richter Chairman of the Supervisory Board

CSR Report

Sustainability at SGL Carbon – an overview

SGL Carbon is a global technology company and expert in the production and processing of materials and products made from carbon-based solutions. As an energy-intensive company, employer in many countries and regions, and international partner, sustainable management and action is an integral part of our corporate strategy. That is why we present our sustainability ambitions and goals in the following chapters. We report on our developments in regard to ESG aspects that are material to us and our stakeholders. By publishing our targets, measures and key figures, we make our ambitions measurable and hold ourselves accountable.

Basics of the report

This CSR report constitutes the non-financial consolidated statement of SGL Carbon pursuant to Section 315b of the German Commercial Code (HGB) and complies with the content requirements as per Section 315c in conjunction with Section 289c-e HGB. Unless stated otherwise, the report covers the activities in the 2023 fiscal year of the entire SGL Carbon Group with the business units Graphite Solutions, Process Technology, Carbon Fibers and Composite Solutions. This year's report structure is based on the three ESG categories Environmental (including environmental and climate aspects), Social (including employee and social issues as well as respect for human rights) and Governance (including supply chain responsibility, compliance and combating corruption and bribery), which are also integrated into the mandatory reporting according to Section 315 c HGB. Furthermore, this report contains all information required by the EU Taxonomy Regulation ((EU) No. 2020/852).

In preparing the report, we have oriented ourselves to the standards of the Global Reporting Initiative (GRI). Additional key performance indicators (KPIs) were developed to better reflect the specific requirements of SGL Carbon. The KPIs in use correspond to those of the previous year. We reviewed and updated the materiality analysis to determine the ESG aspects that are material for SGL Carbon in the 2023 fiscal year with the involvement of our stakeholders. The results are not only important for reporting, but also help us to better understand the requirements of our stakeholders and, if necessary, to derive strategically relevant topics for our corporate strategy. As part of the update in 2023, we checked whether new topics had arisen or whether the significance of topics had changed significantly since the last materiality analysis. We based this process on the European Sustainability Reporting Standards (ESRS) (EU No. 2013/34/EU amended by (EU) 2022/2464). The business model is described in detail in the “Group fundamentals” of the Group Management Report.

The non-financial reporting of SGL Carbon uses the nomenclature of Environmental, Social and Governance and assigns the aspects to be presented in accordance with Section 289c(2) HGB to the three umbrella terms of Environmental, Social and Governance. When the Corporate Social Reporting Directive (CSRD) goes into effect, SGL Carbon will change the structure of the CSR report to the terms and definitions of the CSRD.

The updated materiality analysis from 2023 already takes into account the dual materiality required by regulation from 2024 and was reviewed and approved by the Executive Board, the highest decision-making body for ESG issues. The ESG topics resulting from this analysis (dual materiality) form the basis for the preparation of the material topics in accordance with Section 289c (3) HGB. The following overview shows the allocation of the primary ESG aspects according to the 2023 materiality analysis (in accordance with the CSRD) to the aforementioned umbrella terms Environmental, Social, and Governance. Individual ESG topics listed in the overview are grouped into chapters. For example, information on the management of hazardous substances can be found in the subchapter “Environmental concerns and waste management.”

Environmental concerns = Environmental

- Adaptation to climate change
- Climate protection measures incl. GHG emissions (CO_2)
- Energy use and consumption
- Resource use and circular economy incl. waste

Social concerns and Human Rights = Social

- Working conditions including occupational health and safety
- Equal treatment and equal opportunities
- Employee retention / development incl. training and continuing education
- Other work-related rights incl. human rights

Governance

- Compliance incl. protection of whistleblowers
- Corruption and bribery incl. political engagement
- Management of supplier relationships

In the previous year 2022, the CSR Report also included additional sub-topics that were no longer identified as material to our business model following the new double materiality analysis in 2023. To ensure continuity in reporting, we continue to report on the following topics voluntarily in this CSR Report: water management, product quality and safety, information security and corporate governance. We would also like to continue to emphasize the topic of social commitment. In the Group Management Report, we also provide information on the topics of sustainable product innovations (research and development section) and data protection (opportunities and risks report). We will not report further on the topics of sustainable financing and transparency and reporting. Corporate ethics and the ethical behavior of companies play an important role in almost all ESG topics.

Review of the content of the separate non-financial Group report was performed by KPMG AG Wirtschaftsprüfungsgesellschaft as part of an external limited assurance engagement.

Our ESG ambitions, strategy and goals

Our mission is to positively shape the future by developing cutting-edge carbon-based products - for all industries and areas of life. With its sophisticated and in some case customized solutions, SGL Carbon serves many industries that are shaping future trends: mobility (especially electromobility), semiconductor technology, LED, solar and wind energy, as well as the battery industry and manufacturers of fuel cells. Our aspirations include growing the company with products and technologies that benefit society and reduce our impact on the environment.

We strive to offer products that contribute to greater sustainability, but we also want to ensure that our manufacturing and management processes and our supply chains meet ambitious environmental, social and corporate governance standards.

For more than 10 years, SGL Carbon has reported on its own sustainability efforts by a separate Corporate Social Responsibility Report (CSR Report) and measures, among other things, its own energy and water consumption, waste volumes and provides information on occupational safety, employee concerns and compliance issues. We regularly reviewed and revised our sustainability strategy (also known as our ESG strategy). We monitor our progress and the set targets and adjust these when we reach them in order to continuously improve. Our work in the 2023 fiscal year focused on the implementation and further development of our ESG activities and goals as well as preparing for the implementation of the new Corporate Sustainability Reporting Directive (CSRD). In addition to complying with all legal requirements, we want to make even more strategic use of opportunities and positive sustainability effects of our activities as well as further reduce negative impacts. In doing so, we also consider our support for the United Nations' Sustainable Development Goals (SDGs) (more on this in the section “Our contribution to the implementation of the Sustainable Development Goals”).

The following tables show our ESG targets and the current status of target achievement.

Target Year 2023	Achievement	New or updated target Year 2024	KPI / explanation 2023	 2022	Highlights 2023	Support SDGs[1]
ENVIRONMENTAL						
50% reduction CO_2 emissions (scope 1 & 2) by 2025 (base year 2019)	○	ongoing	295 kt	326 kt	10% CO_2-Reduction Scope 1 and 2 Installation Biomass system in Lavradio site (Portugal) - reduction potential CO_2 approx. 40 kt	Affordable, clean Energy / Climate Action
Climate neutral (scope 1 & 2) by 2038	○	ongoing	295 kt	326 kt	Increase share of renewable energies e.g. electricity from renewables, biomass system	
Development of measures for Scope 3 reduction together with relevant suppliers	○	ongoing	367 kt	399 kt	Calculation of Scope 3 upstream emissions	
Energy intensity reduction by 1% p.a.; 10% until 2027 (base year 2017)	🟢	ongoing	-7%	-4%	ISO 50001 re-certification of material sites	

[1] SDG 7 Affordable and Clean Energy | SDG 13 Climate Action

○ longer duration, target ongoing 🟢 target achieved 🔴 target not achieved or at risk

Target Year 2023	Achievement	New or updated target Year 2024	KPI / explanation 2023	KPI / explanation 2022	Highlights 2023	Support SDGs
SOCIAL						
Lost-time injury frequency rate annual reduction of 5% by 2026 (based on 2022 target)	●	ongoing	1.6	2.3	Reduction of LTI FR from 2.3 to 1.6 compared with the previous year Continuation of the annual Safety Day to further increase safety awareness	Decent Work and Economic Growth
Maintain women's quota of 20% in senior management	●	Maintain women's quota of 20% in senior management	22%	20%	Target of 20% women's quota achieved	Gender Equality
Improvement of the SGL Performance Culture Index	○	Improve SGL Performance Culture Index to target range "good"	not satisfactory	not satisfactory	Semi-annual employee survey on value-based performance culture and employee engagement. Improvement of the index Implementation of various initiatives worldwide to strengthen SGL Carbon's company values Approval of the new leadership development program "Leadership4Performance" to start in January 2024 Development of SGL's new Purpose Statement & Slogan	Quality Education / Decent Work and Economic Growth
Training of all production employees worldwide on Code of Conduct and Human Rights Policy until end of 2024	○	ongoing	17% trained	100% training of admin. workers wordwide	Start online training for production employees on Code of Conduct and Human Rights after creation of digital access for target group Appointment Human Rights Officer	

○ longer duration, target ongoing ● target achieved ● target not achieved or at risk

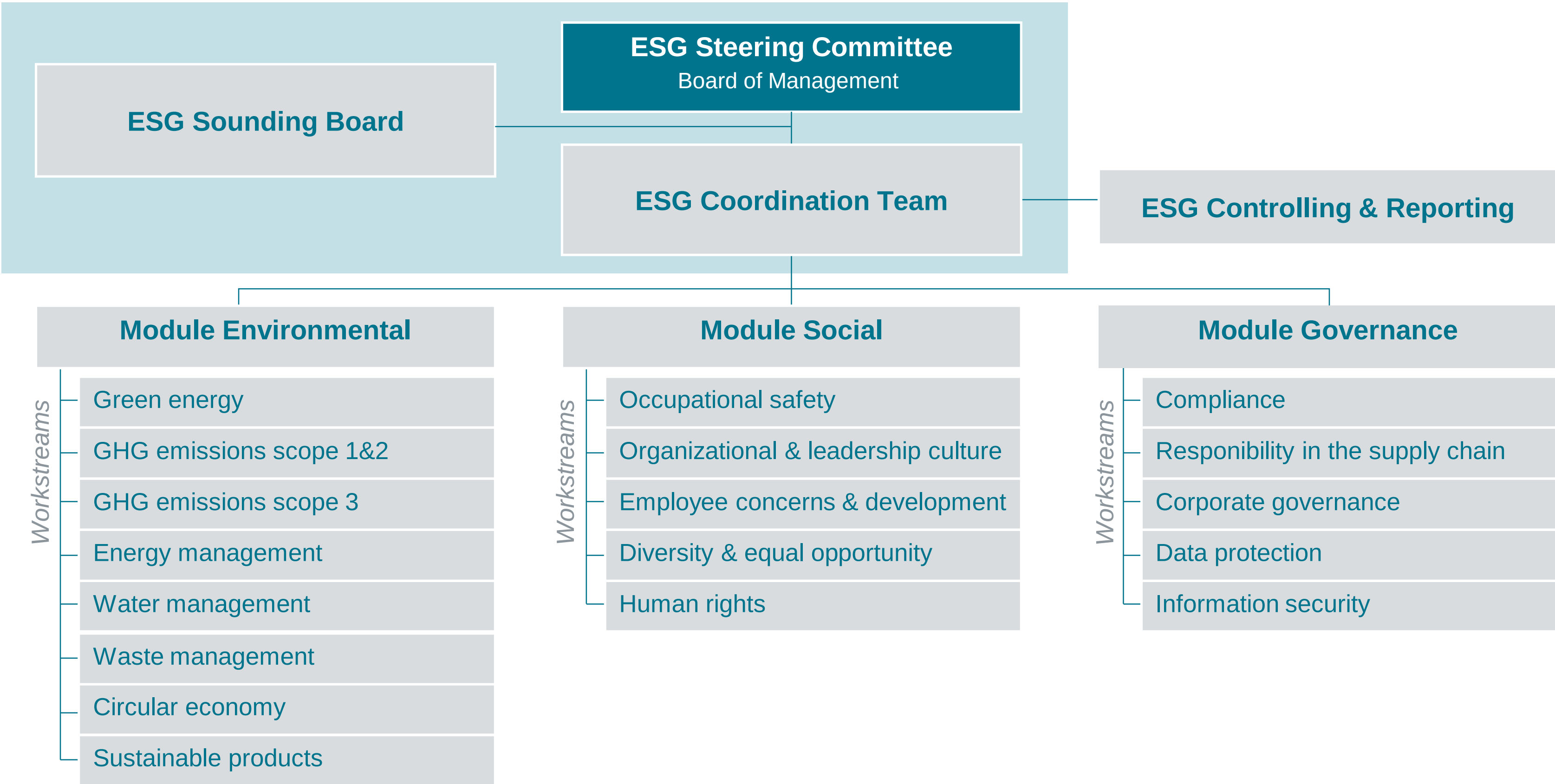
Target Year 2023	Achievement	New or updated target Year 2023	KPI / explanation 2023	KPI / explanation 2022	Highlights 2023	Support SDGs
GOVERNANCE						
Maintaining a Business Partner Code of Conduct signing rate of 100%	●	Maintaining a Business Partner Code of Conduct signing rate of 100%	100%	100%	Update Business Partner Code of Conduct	
Continuation of supplier screening on ESG issues and immediate remediation based on risk assessment	○	ongoing			Around 12% increase in number of suppliers surveyed via standardized online ESG-questionnaire	
No tolerance of compliance violations, supported by investigation and sanctioning	○	ongoing			Investigation of all reported potential violations. No confirmed violations of fraud, bribery and corruption	Decent Work and Economic Growth
Maintain ISO 37301 certification	●	Re-certification Compliance Management System (CMS) in accordance with ISO 37301 incl. anti-corruption and bribery system	ISO Certification	ISO Certification	Expansion of the CMS ISO certification with additional certification of the anti-corruption and bribery system	Peace, Justice, Strong Institutions

○ longer duration, target ongoing ● target achieved ● target not achieved or at risk

ESG Governance structure

To track and further develop our ESG goals and ambitions, we implemented a ESG governance structure for the Group in the 2022 fiscal year. The highest operational decision-making body of SGL Carbon is the Board of Management of SGL Carbon SE. Due to its strategic importance, we have made the topic of sustainability the responsibility of the highest operational decision-making level. The Board of Management is supported in this area by an ESG Sounding Board made up of the heads of our four business units and various experts in ESG-relevant areas.

ESG Governance structure:



Also part of the ESG Steering Committee is the ESG Coordination Team, which consists of those responsible for the three ESG modules. We expanded the supporting "ESG Reporting and Controlling" working group in 2023 to include colleagues from Group Accounting and IT to meet the new requirements of the European Sustainability Reporting Standards (ESRS) in the future. On the operational level, ESG measures and goals are driven by the three ESG working groups (Environmental, Social and Governance modules). Workstreams for all relevant ESG topics with clear responsibilities have been defined below the three ESG working groups. Furthermore, dedicated individuals responsible for ESG have been appointed in all four business units to carry ESG ambitions through to the operating units. These experts work closely with colleagues from Environment, Health & Safety Affairs

(EHSA), workstream leaders, and the ESG Coordination Team. The ESG governance structure therefore ensures both the strategic realization and development of our ESG ambitions, as well as operational implementation in the business units.

Identification of material ESG aspects (materiality analysis)

In the 2023 fiscal year, we again identified and updated the material ESG aspects for SGL Carbon, taking into account the materiality analysis from 2021. The materiality analysis was performed in accordance with the requirements of the Corporate Sustainability Reporting Directive (CSRD) and on the basis of the European Sustainability Reporting Standards (ESRS), considering the principle of double materiality. This includes two central perspectives:

a.) Ecological and social materiality (inside-out perspective - "impacts"): Consideration of the impact of SGL Carbon's business on the environment and society. This analyzes the impact of the company's activities on various interest groups and stakeholders (including the stakeholder "nature").

b.) Financial materiality (outside-in perspective - "risks and opportunities"): Consideration of the influence of ecological and social factors on SGL Carbon. The risks and opportunities arising from external developments that could potentially have a financial impact on the company are examined.

The materiality analysis performed is based on a structured methodology comprising the following steps:

- Collection of potential ESG topics that may be relevant for SGL Carbon (longlist).

In addition to the standards applied (ESRS), the desktop analysis also included ESG topics relevant to the industry sector, a competitive analysis, current trends and developments and the results of the materiality analysis performed in 2021. Information from various sustainability ratings such as MSCI, ISS and Sustainalytics was also included in the collection of topics.

- Elimination of duplicate topics and ESG issues that are not applicable to the business model of SGL Carbon and therefore not relevant (such as animal testing). The exclusion of non-relevant ESG issues is also based on double materiality, i.e. the analysis of potential impacts of the business model of SGL on the environment and society (inside-out perspective) and potential financial opportunities and risks for SGL Carbon (outside-in perspective).

  Topics that were below the relevance threshold, but which SGL Carbon wanted to report on a voluntary basis for reasons of continuity, for example, remained in the medium list (e.g. freedom of association). This medium list is the basis for the additional steps of the materiality analysis, including the identification and assessment of potential impacts, risks and opportunities for each ESG topic identified.

- Identification and assessment of potential impacts, risks and opportunities.

In a first step, relevant positive and negative, actual and potential impacts of SGL Carbon's business on the environment and society were identified for all topics on the medium list. In a second step, financial risks and opportunities were identified for these topics on the basis of the ESRS standards.

In addition, specific risks and opportunities arising from SGL Carbon's specific business model have been added. All identified impacts, risks and opportunities were classified according to relevance levels to ensure that the material environmental and societal impacts as well as financial risks and opportunities for SGL Carbon are adequately considered. The relevance levels were classified from low to high and were assigned to the respective topics by the ESG team after joint consideration.

In a next step, those ESG topics that identified at least one impact, risk and/or opportunity that were rated as having medium or high relevance were transferred to a shortlist. ESG topics with impacts, risks and opportunities of only minor relevance were not pursued. This way, ESG topics could be excluded that neither have a serious impact on the environment and society nor represent a risk or an opportunity for SGL Carbon's business.

- Expert workshops for the final validation of impacts, risks and opportunities

The impacts, risks and opportunities previously identified by external and internal ESG experts for the topics on the shortlist were validated again in various specialist workshops. The impact of SGL's business model on the environment and society was assessed and the financial risks and opportunities for SGL Carbon were once again evaluated by the subject experts. At the same time, the specialist workshops served as an opportunity to record and elaborate on impacts, risks and opportunities that had not been considered in the pre-selection process. The original ESRS terminology for assessing impacts, risks and opportunities was retained and explained to all participants.

Impacts were assessed by scope, extent, likelihood and mitigation, with mitigation assessed only for negative impacts and likelihood only for potential impacts. A time horizon was also defined for all impacts. Risks and opportunities are assessed based on SGL Carbon's internal risk management approach to classify ESG risks and opportunities within the company's risk management system. The assessment included the financial impact and likelihood of occurrence for all identified risks and opportunities.

▪ Identification of the material ESG topics for SGL Carbon

In a final step, the severity of the impacts, risks and opportunities was assessed, with a severity level of ≥ 3 being set as the relevant threshold. The degrees of severity were determined as follows:

1. Impacts: The severity level for the impacts was developed based on the corresponding recommendations of the draft "Implementation Guidance for the Materiality Assessment" of 8/23/2023 of EFRAG.

2. Risks and opportunities: The severity of the risks and opportunities was assessed using the SGL Carbon risk matrix. The potential financial impact and the probability of occurrence were considered.

As soon as a defined impact, risk and/or opportunity reached or exceeded the defined relevance threshold (≥ 3), the corresponding ESG topic was classified as "provisionally material".

The final confirmation of the ESG topics that are "provisionally material" for SGL Carbon took place in a workshop of the company's highest decision-making body. The Board of Management confirmed:

a) The validation of the ESG topics that are material for SGL Carbon in accordance with the Corporate Sustainability Reporting Directive (CSRD)
b) The selection of topics on which the company reports voluntarily. These are ESG topics that are not reportable for SGL Carbon under the CSRD, but are of interest to the company's stakeholders because of reporting continuity,
c) and the topics identified as immaterial for SGL Carbon in terms of the CSRD were confirmed.

Stakeholder engagement

SGL Carbon strives to make sustainable use of human, natural and financial resources. We remain in close dialogue with our stakeholders throughout the year. In addition to regular communication with our stakeholders, a stakeholder survey was also conducted in the 2023 fiscal year as part of the materiality analysis. The goal of this survey was to confirm the ESG topics identified as material for SGL Carbon and to make additions where necessary.

Relevant stakeholders for SGL Carbon are institutions or persons with whom we have a direct or indirect relationship through our business activities and who therefore have an interest in our actions, including those whose interests are particularly affected by our actions ("affected stakeholders"). Our most important stakeholder groups are therefore our customers, employees, suppliers, owners and banks, media, all neighbors of our locations and the representatives of associations, academia, public authorities and non-governmental organizations (NGOs). We engage in dialogue with them on a regular basis to promote mutual understanding and we also seek to continuously identify topics that are important from the perspective of the context in which we operate.

For the stakeholder survey conducted in the 2023 fiscal year, we identified the various external and internal stakeholder groups along our value chain, taking the ESRS guidelines into consideration. In an online survey, stakeholder representatives were asked about the impact of SGL Carbon's business on the potentially material ESG topics identified by the materiality analysis and presented to the representatives in the shortlist. The relevance of the topics was rated on a scale of 1 to 6, with the rating options ranging from (1) no relevance to (6) serious. The evaluation was performed by ranking ESG topics according to relevance.

The stakeholder survey confirmed the material topics identified in the materiality analysis for SGL Carbon.

Our contribution to the implementation of the Sustainable Development Goals

Based on the ambitions, goals and measures we have initiated and planned, our commitment to a culture of values and compliance and our innovative nature should benefit the environment as well as society.

We intend to use these points of leverage based on our business model to make our contribution to achieving the United Nations' Sustainable Development Goals within the scope of our business capabilities. Our membership in the UN Global Compact will also support further progress in these areas. We defined eight SDGs in 2021 for which we believe that we can make the greatest possible contributions to their implementation with our business model. These have remained unchanged in 2022 and 2023.

The overviews at the beginning of the chapter entitled "Goals, Highlights 2022, and Contribution to the SDGs" also show key measures for achieving the goals and the contribution to supporting the focus SDGs of SGL Carbon.

Our contribution:

Core SDGs

SDGs where SGL Carbon has most significant & direct contribution

SDG 8: Decent work and economic growth
SDG 9: Industry, innovation and infrastructure
SDG 13: Climate action
SDG 16: Peace, justice and strong institutions

Supportive SDGs

SDGs where SGL Carbon can leverage its influence to reach SDGs

SDG 4: Quality education
SDG 5: Gender equality
SDG 7: Affordable and clean energy
SDG 12: Responsible consumption and production

Material risks pursuant to Section 315c in conjunction with Section 289c(3)(3 and 4) HGB

For the separate non-financial Group reporting and thus for the defined ESG aspects, the material risks arising from SGL Carbon's own business activities as well as the risks associated with SGL Carbon's business relationships, products and services were taken into consideration. The identified risks could, where applicable, have a negative impact on the ESG aspects (Section 315c in conjunction with Section 289c(3)(3 and 4) HGB). As part of the double materiality analysis, the responsible departments first identified the primary risks that could arise from the defined ESG aspects. These risks were then assessed together with Group Risk Management, taking into account the monitoring and controlling measures, and examined in particular to determine whether they could have a serious negative impact. In summary, no material risks have been identified that are very likely to have a serious negative impact on the above-mentioned ESG aspects including employee and environmental matters, human rights, anti-corruption and anti-bribery, and society matters. Further information can be found in the Group Management Report in the section Opportunities and Risks Report.

Environmental

Environmental concerns

We, at SGL Carbon, are aware of the importance of ecological responsibility in today's world. As an energy-intensive production company with global operations, we consume natural resources and cause emissions. We are determined to reduce our ecological footprint and actively address urgent environmental challenges. Sustainable action and management are an integral part of our corporate culture and decision-making processes. We maintain high standards in our production plants and processes combined with clearly measurable and comprehensible targets.

But it is not only through our own actions that we want to contribute to environmental and climate protection. To this end, a large number of the products we manufacture help to reduce CO_2 emissions, as they are used in renewable energy (such as solar and wind power), LED technology and electromobility.

The primary obligations for production are specified in the national and international regulatory permits and regulations. The European regulations on noise pollution, emissions, water and waste, the implementation of such regulations in national law, and the REACH regulation on chemicals should be mentioned here as a basis.

In addition to meeting legal requirements, the importance of protecting the environment and climate is also reflected in the SGL Carbon Code of Conduct, which defines the guidelines for action for all SGL Carbon employees. These are supplemented and specified in detail by the Environment, Health & Safety Affairs (EHSA) Guideline, which has been applicable to all locations worldwide since 2022. A Code of Conduct for business partners (Business Partner Code of Conduct), which commits them to lawful, ethical and sustainable behavior, has also been in place since 2015. This Code of Conduct was fundamentally revised in the 2023 fiscal year with regard to the legal requirements of the Supply Chain Due Diligence Act (LkSG) and environmental and climate requirements.

One focus of SGL Carbon's partnership with suppliers and customers is the exchange of information with the aim of minimizing risks when using chemical substances and hazardous materials. In an internal, globally standardized system, we create relevant product information such as safety data sheets, which are then made available to customers. SGL Carbon meets the national requirements for Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) throughout the world. SGL Carbon also makes an important contribution to dealing with hazardous substances in this way.

The central corporate EHSA unit is responsible for reviewing operational activities relating to climate and environmental protection and for coordinating measures to improve occupational safety Group-wide. It defines uniform standards and reviews progress in cooperation with local Environment, Health & Safety (EHS) managers. As a rule, the sites are also audited by the central corporate EHSA unit every three years, or more often than that if incidents have frequently occurred at any given site. In 2023, the following nine production units were audited, in-part remotely via virtual call: Lavradio, Madrid, Ort, Ried, Shanghai-SFE, Shanghai SGT, Verdello, Yamanashi, Yangquan.

To appropriately reflect the growing significance of the areas of environment, social and governance, in the 2022 fiscal year, the central Corporate Sustainability function was created to manage SGL Carbon's initiatives for environmental and climate protection as well as to evaluate and develop sustainable products, making it possible to work closely with the EHSA unit and the four operating business units of SGL Carbon. The department is also responsible for internal and external reporting on Group-wide ESG issues.

Energy consumption

A large proportion of SGL Carbon products are manufactured at high temperatures in energy-intensive processes. A majority of the energy consumption is used for generating the necessary process heat and for thermal purification. The energy sources used are electricity, in part from renewable energy sources, steam, oil and gas. Some 90% of SGL Carbon's total energy consumption can be attributed to nine of 29 sites due to their size or necessary production processes.

SGL Carbon is constantly striving to improve the energy efficiency of its processes, both out of a sense of responsibility for the environment and for economic reasons, as energy costs account for a high proportion of our production costs. The volatility of energy costs over the last two years has particularly confirmed our commitment to steadily improving energy efficiency and, where possible, switching to renewable forms of energy.

The individual business units and the heads of the production sites are responsible for the development and operational implementation of energy-efficiency measures and projects. Energy managers who report to the site management at least annually are appointed at sites that make a significant contribution to overall energy consumption. Those responsible at the plants are supported by the central energy management team.

In the 2023 fiscal year, the HSE Council, which also includes the Board of Management and the heads of the business units, was responsible for monitoring and strategically developing energy management. Additional details on the HSE Council and its tasks can be found in the “Occupational health and safety” section of this CSR Report. In the HSE Council in 2023, SGL Carbon's global energy officers reported on the status and progress of local and global target achievement.

In addition, the ESG SteerCo, which is chaired by the Board of Management, regularly reports on energy efficiency improvements and selected projects.

The newly established Energy Council also met on five dates in 2023 to discuss relevant topics in the area of energy procurement and sustainability. The Board of Management, selected heads of the business units, the Head of Corporate Development and sustainability experts took part in these meetings. The meetings focused on a comprehensive market update that highlighted important developments and trends in the energy sector. A key point of discussion was energy procurement, including hedging strategies to effectively manage price fluctuations and risks. Another important aspect of the discussions was the procurement options of electricity from renewable sources, which underlines our commitment to promoting a more sustainable and environmentally friendly way of conducting our business activity.

SGL Carbon's energy management aims to ensure efficient use of all types of energy. In 2018, we made a commitment to reducing global energy consumption as a percentage of adjusted sales revenue by 1% per year and to reach a 10% reduction compared to the 2017 baseline by 2027. We exceeded this target in 2022, but continue to work on reducing our annual energy intensity by 1%. Compared to the base year 2017, absolute energy consumption fell by around 11% to 1,169 gigawatt hours, despite a significant increase in sales revenue. In the same period, specific energy consumption in relation to economic output (intensity) fell by around 36% to 1.07 GWh per €1 million in sales revenue.

Energy consumption in relation to economic output (intensity) for 2023 decreased by about 7% compared to the previous year.

In previous years, the intensity ratios were based on so-called adjusted sales (excluding price, currency and other special effects). As the European Sustainability Reporting Standards (ESRS) do not provide for any adjustments in the future, SGL Carbon is already abandoning this methodology in the tables for 2023.

Energy consumption [1]	2023	2022	Change
in gigawatt hours (GWh)	1,169	1,301	–10%
thereof oil and gas	427	468	–9%
thereof electricity	519	592	–12%
thereof steam	223	241	–7%
Energy consumption in relation to economic output (GWh per €1,000m sales revenue) [2]	1.07	1.15	–7%

[1] Data include all fully consolidated subsidiaries

To improve energy efficiency, SGL Carbon is focusing on energy-efficient plants and process optimization. This is documented in the EHSA policy on energy management and the Code of Conduct. Likewise, training measures are offered at the ISO 50001-certified sites. This encourages our employees to deal responsibly with the issue of energy. They should further develop skill sets that allow them to actively contribute to reducing energy consumption.

The ISO 50001 energy management system was introduced at the most energy-intensive European production sites in 2015. Currently, eight sites are successfully ISO 50001:2018 certified, accounting for 55% of SGL Carbon's total energy consumption: Bonn, Meitingen, Chedde, Lavradio, Muir of Ord, Nowy Sacz, Raciborz and Wiesbaden. In 2023, the external audits were carried out in a uniform manner by certification company DMSZ (Deutsche Managementsystem Zertifizierungsgesellschaft mbH). The regular recertification of our energy management system was successfully completed without any inconsistencies.

All energy efficiency projects at ISO 50001 certified sites are recorded in a central database. This database facilitates effective measures and effect controlling of all planned projects, including implemented and expected efficiency improvements.

In the 2023 fiscal year, the heating system at the Meitingen site was further optimized. By integrating the waste heat from the thermal post-combustion (exhaust air purification) of a production plant into the site's central heating system, a significant amount of natural gas has already been saved since commissioning in the second half of 2023.

Waste heat was also extracted at the Bonn site, from the central compressor station, and integrated into the site's heating system, which also saved significant amounts of fossil energy.

The respective energy-related product yields were increased through improved process management at the Meitingen and Chedde sites.

At the Chedde and Muir of Ord sites, data collection was improved by integrating additional energy meters into the respective control system, significantly improving data quality as a basis for further energy-saving projects.

At the Meitingen site, a pilot project for building automation using artificial intelligence was performed in an office building built according to the open-space concept. A considerable number of room air sensors were installed. After a learning period, these sensors regulate the indoor air (heating/cooling/ventilation) with the aim of increasing the well-being of employees and saving energy.

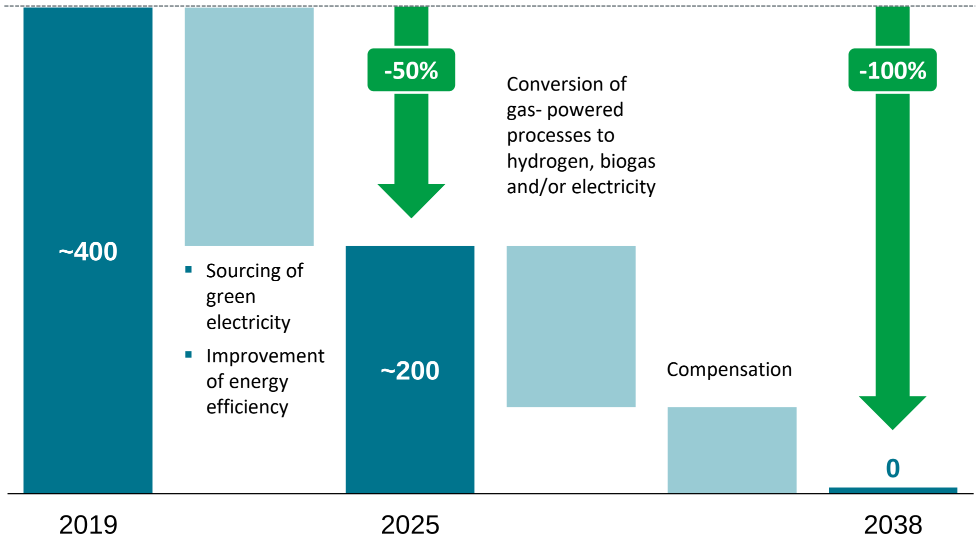
CO_2 emissions

Climate change and mitigating its impacts are key global challenges. As an energy-intensive company, SGL Carbon bears a special responsibility because our energy consumption is associated with the emission of greenhouse gases, primarily CO_2. This is also our largest source of leverage for reducing CO_2 emissions. In addition, we want our products and solutions to make a contribution to CO_2 reduction for our customers and thus to climate protection. For example, we supply materials and components for the production of electric vehicles as well as wind and solar energy production, and are one of the few European suppliers of graphite anode material for lithium-ion batteries. But our products are also needed in other alternative drive systems such as fuel cells.

Despite persistently challenging developments in 2023, such as high interest rates and inflation, increasingly tense geopolitical developments and the associated difficult economic conditions, we continued to work consistently on reducing our greenhouse gas emissions. In 2023, for example, we installed a biomass plant at our Lavradio site. This obtains the required biomass from a radius of approximately 250 kilometers around the plant. Steam is required for the production of textile and carbon fibers in Lavradio, which was previously produced by a natural gas-fueled plant. SGL Carbon is committed to global climate protection and supports the UN Sustainable Development Goal “Take urgent action to combat climate change and its impacts.” SGL Carbon also participates in the program for reporting data relevant to climate protection of the international organization CDP and improved its rating from “C” to “B” in 2023. This clearly demonstrates our measurable success in reducing our CO_2 footprint.

SGL Carbon’s CO_2 emissions are Scope 1 emissions resulting from combustion processes and Scope 2 emissions attributable to power and steam consumption. In 2021, SGL Carbon had already set itself the goal of cutting total emissions (Scope 1 and Scope 2) in half by 2025 compared to the emissions of reference year 2019. We want to reduce our emissions by 100% and become climate neutral by 2038. We remain committed to these goals.

The following figure shows SGL Carbon’s CO_2 reduction targets expressed in kt CO_2e (Scope 1 and Scope 2):



Our CO_2 targets are to be achieved through specific actions. For several years now, electricity has been obtained from renewable sources at the Wackersdorf, Ort and Ried sites. Both Polish sites also covered 100% of their electricity requirements from green electricity in 2022. We have also been using renewable electricity at our Italian site in Verdello since 2023. In total, we purchased more than 29 GWh of clean energy worldwide in 2023. In addition to commissioning a photovoltaic system in Ort in the Innkreis (Austria) in 2021, a photovoltaic system was also installed on the roof of the production building in Ried, our second production site in Innkreis (Austria), in 2022. The new 530 kWp plant was commissioned in 2023 and saved approximately 20 tons of CO_2 in 2023. Over 95% of the power produced is also consumed on site. This means that we saved a total of 60 tons of CO_2 in 2023 through the use of solar energy at our two sites in Austria alone. The photovoltaic systems in Bonn, Ort and Ried, generated a total of around 630 MWh of green electricity in the reporting period.

By 2025, SGL Carbon plans to cover its global power requirements from renewable sources to the greatest possible extent. In addition to installing more systems for supplying power internally on site, such as photovoltaic systems, we also rely on the conclusion of long-term power purchase agreements (PPAs), in which the power supplied to the sites is guaranteed to be from renewable energy sources. Due to the upheaval on the energy markets as a result of the war in Ukraine, procuring green electricity proved to be extremely challenging in the 2022 and 2023 fiscal years. At our Muir of Ord (Scotland) site, for example, we had to suspend the procurement of CO_2 certificates.

To achieve greenhouse gas reductions after 2025, SGL Carbon plans to use electricity to operate high-temperature processes that were previously gas-fired or to switch to the use of hydrogen and biogas. We expect that roughly one-third of emissions will be unavoidable in 2025 and will therefore need to be offset. In addition, increasing energy efficiency remains a key issue [see energy consumption section].

SGL Carbon strives to reduce not only the CO_2 emissions over which we have direct influence but also the emissions coming from the upstream and downstream value chain. In 2022, we analyzed our upstream Scope 3 emissions in detail for the first time. To this end, we evaluated our purchasing data in the “Estell” input/output model. This is a well-established statistical process that reports emissions both at the direct supplier level and in their upstream value chain. We evaluated the following Scope 3 categories: 1. Purchased goods and services, 2. capital goods, 3. fuel and energy-related emissions (not included in

Scope 1 or 2), 4. transportation and distribution (upstream), 5. waste, 6. business travel. We continued to determine our Scope 3 emissions for the 2023 fiscal year: Overall, Scope 3 emissions in the aforementioned categories amounted to 367 kt (2022: 399 kt) and were therefore reduced by 8% compared to 2022.

We have set ourselves the goal of obtaining the climate targets of our top 100 suppliers and working with these suppliers to develop potential for reducing the CO_2 emissions of their materials and to start implementing them by the end of 2024.

In the 2023 fiscal year, SGL Carbon's Scope 1 and 2 CO_2 emissions totaled 295 thousand metric tons (2022: 326 thousand metric tons). The decline is partly due to our reduction measures but also to lower production volumes in the Carbon Fibers business unit. If CO_2 emissions are compared with economic output, they decreased from 0.29 kt per €1.0 million in sales to 0.27 in 2023.

If CO_2 emissions are compared to adjusted sales (excluding price, currency and other special effects), they have decreased from 0.31 kt per €1.0 million in 2022 to 0.27 kt in 2023. This key figure is reported exclusively due to disclosure requirements in financing instruments.

CO_2-emissions [1] [2]	2023	2022	Change
in thousands of tons (kt)	295	326	–10%
thereof direct	79	86	–8%
thereof indirect	216	240	–10%
CO_2 emissions in relation to economic output (kt per € 1.0m sales revenue)	0.27	0.29	–7%

[1] Data include all fully consolidated subsidiaries
[2] The calculation of CO_2 emissions is based on the "UK Government GHG Conversion Factors for Company Reporting" of the Department for Business, Energy & Industrial Strategy, Gov. UK, for direct emissions (Scope 1) and steam (Scope 2) as well as on "EMISSION FACTORS 2023" of the International Energy Agency (IEA) for indirect emissions (Scope 2)

In a regional comparison, around 96% of direct emissions and 90% of indirect emissions occurred in Europe and North America in 2023. The direct and indirect emissions of our plants in Asia (China and Japan) were comparatively low at 4% and 10% respectively. This distribution reflects the regional production mix as well as the regional production volumes.

Direct CO_2 emissions by regions	2023	2022	Change
in thousands of tons (kt)	79.1	85.7	–8%
Europe	44.4	47.0	–6%
North America	31.7	36.1	–12%
Asia	3.0	2.6	15%

Indirect CO_2 emissions by regions	2023	2022	Change
in thousands of tons (kt)	215.7	240.1	–10%
Europe	100.6	109.9	–8%
North America	94.2	111.2	–15%
Asia	20.9	19.0	10%

Waste and water management

SGL Carbon's business activities generate various residual materials according to the stages of the value chain. For environmental and economic reasons, residual materials that result from production processes are largely recycled. Water is used for purposes that include cooling production plants, producing steam and forming isostatic graphite (pressing processes). Waste from the production of graphite blocks is ground and then reintroduced into the production process. Residual carbon fibers are used for the production of injection-molded parts, among other things.

At all its sites worldwide, SGL Carbon undertakes to comply with all applicable legal requirements and to maintain effective management processes as well as to continuously improve performance in resource management. The ultimate objective is to make efficient use of resources and place as little burden as possible on the environment. Water withdrawal and waste volume are to be continuously reduced in this way. The principle in the context of waste is: Prevention before recycling before disposal.

Water is required at SGL Carbon sites primarily for sanitary and social purposes, cooling and for industrial applications. As the shortage of global water resources is steadily progressing and to be able to respond to possible water shortages in some regions, the topic of "reducing water withdrawal" will be a key issue in the coming years. Reducing water withdrawal also makes sense for economic reasons. Currently, 8 out of 29 SGL sites are located in regions with very high water scarcity (source: Water Risk Atlas, www.wri.org). To conserve water as a resource, SGL Carbon relies on secondary loops and recooling systems where they make economic sense. Water that is not used directly for the production process is not contaminated and can therefore be discharged back into rivers after use in some cases.

SGL Carbon codified its approach to resources in its EHSA training policy. The Business Partner Code of Conduct for our business partners also contains information on the topic of waste. It requires SGL Carbon and its suppliers to obtain necessary permits, recycle and avoid waste and the release of hazardous substances into the environment. Once a month, the central corporate EHSA unit collects data on resource use and waste generation in cooperation with local EHS managers at all sites. The water withdrawal is specified for each water source and by region. When it comes to waste, a distinction is made between hazardous and non-hazardous types and according to regional generation. Hazardous waste management is required by the operating permit for SGL Carbon production sites. Hazardous waste is treated in disposal facilities approved only for this purpose.

In fiscal year 2023, SGL Carbon's water withdrawal was reduced by around -1% to 5.41 million cubic meters in the 2023 fiscal year. Water withdrawal increased slightly in relation to economic output from 4.8 cubic meters per €1,000 of sales revenue in 2022 to 5.0 in the reporting year. In absolute terms, the amount of waste increased from 24.8 thousand tons to 26.5 thousand tons. In relation to sales revenue, the waste volume also increased by around 11% compared to the previous year to 24.3 metric tons per €1.0 million in sales revenue.

Water withdrawal [1]	2023	2022	Change
Total (millions m^3)	5.41	5.44	−1%
thereof from Company wells	3.31	3.40	−3%
thereof from rivers	0.59	0.58	2%
thereof from public water supply	1.51	1.46	3%
Water withdrawal in relation to economic output (m^3 per € 1,000 in sales revenue)	5.0	4.8	4%

Waste volume [1]	2023	2022	Change
in thousands of tons (kt)	26.5	24.8	7%
thereof hazardous waste	3.4	3.6	−6%
Waste volume in relation to economic output (kt per € 1.0m sales revenue)	24.3	21.8	11%

[1] Data include all fully consolidated subsidiaries

In a regional comparison, around 99% of water withdrawal and 97% of waste volumes were generated in Europe and North America in the reporting year. This reflects the production processes and volumes in the regions.

Water withdrawal by regions	2023	2022	Change
Total (millions m^3)	5.41	5.44	−1%
Europe	4.12	4.25	−3%
North America	1.22	1.12	9%
Asia	0.07	0.07	0%

Waste volume by regions	2023	2022	Change
Total (kt)	26.5	24.8	7%
Europe	13.6	13.1	4%
North America	12.1	11.3	7%
Asia	0.8	0.4	100%

Circular economy

In a circular economy, existing materials and products are reused, refurbished, repaired and recycled to extend their life cycle for as long as possible. The goal is to reduce resource use and waste to a minimum. The transition to a circular economy is both a societal obligation and one of the six environmental objectives of the EU taxonomy. This has led to a rise in the interest of our customers and business partners in approaches and solutions developed by SGL Carbon.

Development and operational implementation to improve the recyclability of our products is performed in the four SGL Carbon business units, which also share ideas, concepts and experiences. Three principal approaches are being pursued in this context: using recycled raw materials, improving material properties and lifecycle optimization, and developing new business models.

The Graphite Solutions (GS) business unit is implementing several projects related to the circular economy. For example, cutting scrap from “green” production of graphite blocks is fed into the original production process. A development project of novel recycling concepts is included in the funding decision received in March 2021 for the development and industrialization of innovative anode materials made of synthetic graphite for use in lithium-ion batteries in the context of the second European IPCEI program (Important Project of Common European Interest)/EUBatIn (European Battery Innovation). The EU-funded ICARUS project is pursuing the closure of material loops in the production of silicon wafers for the solar industry. As part of ICARUS, SGL Carbon is working on ways to reuse recycled graphite from solar silicon processing in synthetic graphite applications while also working on recycling silicon. In addition, the business unit is looking at alternative carbon raw materials from renewable and recycled sources and evaluating their use in carbon materials.

The Carbon Fibers (CF) business unit is involved in the “Green Carbon” project sponsored by the Technical University of Munich, in which “green” acrylonitrile is to be obtained from algae and used to make a carbon fiber precursor. In the project, SGL Carbon is evaluating the properties of biologically based acrylonitrile, the manufactured precursor and the suitability of the precursor in volume production of carbon fibers. Project participants expect to produce a “green carbon fiber” by the middle to end of the decade. SGL Carbon produced precursors and carbon fibers from bio-based acrylonitrile for the first time in 2022. The carbon fiber produced in this way has comparable properties to a fiber obtained by means of the conventional petrochemical manufacturing route.

Since carbon fiber materials can serve as valuable raw materials both as residual substances and as recycled materials, the development of recycling processes for this still young class of materials is being accelerated by Composites United e.V., among others, and coordinated with authorities and waste associations. For SGL Carbon, recycling is a cornerstone of its innovation portfolio, and we support association projects with materials expertise and research services.

The Process Technology (PT) business unit already takes into consideration the various life cycle issues and offers its customers appropriate service packages (including installation and commissioning services, inspection services and remote services). The product design is based on reliability, durability and opportunities for repairs and upgrades, including capacity expansions. An end-of-life (EoL) strategy is just as much a part of the product life cycle as customer support during the commissioning and operating phase of our equipment and plants. With end-of-life service, we offer our customers custom solutions tailored to specific requirements to improve the recyclability of plants. This can include refurbishment of the plant or further use of individual components.

The Composite Solutions (CS) business unit continued to promote its development efforts in the area of sustainable fiber composites with a reduced CO_2 footprint and easier recyclability in 2023. A three-year research project was launched with various industry and research partners with the aim of developing a battery housing that can be manufactured in a particularly resource-efficient way and can be recycled more easily. The intensive collaboration with various companies from the recycling industry for reprocessing fiber composite components, which began in the previous year, was continued and expanded to include new approaches. In the process, carbon and glass fibers are recovered for further use as reinforcement for injection-molded components or molding compounds. In a research project, methods are being developed to recover and reuse components of matrix resin in the future. Composite Solutions uses nonwoven materials made from recycled carbon fibers as structural reinforcement and as electromagnetic shielding layers in fiberglass components.

In the Corporate business unit (Logistics), polystyrene linings for specific cardboard packaging were replaced with recycled cardboard bags. This makes a sustainable contribution to reducing the amount of packaging material containing plastic.

Products

Tailor-made materials and products manufactured from special graphite, carbon fibers, and composites form the foundation of our business model and ensure the satisfaction of our customers. Quality and the development and supply of sustainable products and innovations are the basis of the economic success of SGL Carbon, both now and over the long term.

Product quality

We ensure the quality of our products and services by consistently applying global and local quality indicators, ongoing internal quality management, and regular customer feedback. Implementing advanced technologies to detect defects early on and monitoring quality underlines our commitment to excellence.

The operating business units continued their internal quality management and related reporting in 2023. The GS and PT business units use a comparable system. Monthly quality key performance indicators are collected for each site and summarized to business unit values. The development of the key figures is regularly discussed with business unit management. In addition, quality management also reports on possible improvements and progress relating to complaints processing.

The GS business unit conducted another global customer satisfaction survey in 2023. Overall, good participation was achieved and customer feedback was similarly positive as in the previous year. The PT business unit launched a customer survey in the fourth quarter of 2023. Initial feedback has been analyzed and indicates positive customer feedback.

The CF business unit installed camera-based systems for early defect detection and quality monitoring at several production sites. This not only ensures the quality of the products but also helps prevent accidents.

Global Operations Improvement (GOI) Team

To continuously improve process and organizational quality, an Operations Management System (OMS) tailored to SGL Carbon began in 2017. This SGL-specific production system pursues standardization of processes, standardization of systems within the organization, and development of a common understanding across all production sites. The OMS is managed by our Global Operations Improvement (GOI) team. In 2022, these activities were integrated into the global Process, Technology, Safety and Environmental (PTSE) organization. This team reports directly to the CEO and works on efficiency improvement and quality and occupational safety initiatives at the manufacturing sites of all four business units in focused project assignments (“sprints”). Lean manufacturing approaches were consistently applied, resulting in substantial reductions in throughput times and scrap rates as well as increases in productivity and plant availability. Within the scope of the project assignments, workplaces were evaluated with regard to occupational safety and appropriate improvement measures implemented, where necessary.

ISO certifications

Nearly all SGL Carbon sites are already integrated into the global quality management system and certified according to the ISO 9001 quality management standard. Depending on the specific requirements, certifications to the environmental management standard ISO 14001, the occupational health and safety management standard ISO 45001, the energy management standard ISO 50001, and the quality management standards EN/AS 9100 (for aviation) and IATF 16949 (for the automotive industry) are available.

The following certifications were renewed in 2023: quality management pursuant to IATF 16949:2016 at the Ort and Ried sites in Austria; energy management pursuant to ISO 50001:2018 in Wiesbaden, Bonn, Chedde, Lavradio, Meitingen, Muir of Ord, and in Poland (Nowy Sacz, Raciborz).

The anti-bribery management system pursuant to ISO 37001:2016 and the compliance management system pursuant to ISO 37301:2021 were introduced Group-wide.

Sustainable products and reporting on the EU taxonomy

Customers and other stakeholders increasingly expect value chains to be aligned with sustainability criteria. SGL Carbon is therefore committed to knowing the environmental and climate impacts of its products while they are being manufactured and during their service lives. The company is also committed to continuously identifying options for optimizing the effects they have on the environment and climate. We strive to grow with products and technologies that support the trends of the future and reduce the impact on the environment.

In many target markets, the reduction of environmental and climate impacts are a material decision-making criterion in the use and consumption of such products. Many of SGL Carbon’s materials and products are already in use in industries that make a crucial contribution to protection of the environment and climate. This includes the use of SGL composites in wind turbines for the generation of renewable energy or the increasing use of battery and fuel cell solutions in climate-friendly energy and mobility concepts. Many

SGL products have the potential to foster the development of low-carbon technologies, such as through increased use in photovoltaics, LED lighting, and lightweight construction, or through increasing heating and energy efficiency. In the mobility sector, SGL Carbon's lightweight composite solutions help reduce energy requirements in the automotive and aviation industries, thus contributing to an overall reduction in CO_2 emissions.

EU taxonomy

In December 2019, the European Commission presented the "European Green Deal", which includes the goal of making the European Union climate neutral by reducing net greenhouse gas emissions in the European Union to zero by 2050. Achieving this goal will require action such as redirecting private and public capital into environmentally sustainable activities. This required the development of the EU Taxonomy Regulation (EU 2020/852 or "EU taxonomy"), a classification system for defining environmentally sustainable economic activities.

For the 2021 fiscal year, companies that publish a non-financial report were for the first time required to provide information on taxonomy-eligible sales revenue shares, capital expenditure (capital expenditure, capex), and operating expenses (opex) in accordance with the EU taxonomy. SGL Carbon has been covered under this obligation since 2021, and it published this information for its taxonomy-eligible economic activities in 2021 in relation to the two published environmental objectives of climate change mitigation and climate change adaption. The key figures have not yet been assessed in terms of their environmental sustainability for fiscal year 2021, as required by the EU taxonomy.

Starting in fiscal year 2022, legal requirements expanded reporting to include taxonomy-aligned economic activities. SGL Carbon was subject to this obligation. The necessary analyses were adjusted accordingly. New EU publications from 2023 were considered (see below for details).

In 2023, the obligation to assess the taxonomy eligibility of the environmental goals 3 to 6: sustainable use and protection of water resources, transition to a circular economy, prevention of pollution, and protection of ecosystems and biodiversity will apply for the first time. An assessment of taxonomy suitability is not planned for these environmental targets until 2024 and was therefore not performed by SGL Carbon. Regulations (EU) 2023/2485 and (EU) 2023/2486, which were not adopted until November 2023, were included in the assessment.

For fiscal year 2023, SGL Carbon could only identify the following economic activities and products as taxonomy-eligible in connection with the environmental goal of climate protection: manufacture of renewable energy technologies (SGL products: carbon fibers for use in the wind industry, specialty graphite products for the wind industry), manufacture of batteries (SGL products: graphite anode material for lithium ion batteries) and composite battery boxes for electric vehicles, manufacturing of automotive and mobility components.

No taxonomy-eligible products were identified under the environmental goals of adaptation to climate change, sustainable use and protection of water resources, transition to a circular economy, prevention of pollution, and protection of ecosystems and biodiversity.

Determination of the taxonomy key figures

Reporting on the nature of taxonomy-eligible as well as taxonomy-aligned economic activities is carried out in accordance with the Taxonomy Regulation (EU) 2020/852. The key figures to be reported are the shares of taxonomy-eligible and taxonomy-aligned sales revenue, investments, and operating expenses. SGL Carbon uses the reporting forms provided for in Annex II of Regulation (EU) 2021/2178 for this purpose.

The data collection is based on consolidated Group data. Double counting in the allocation of sales revenue, investments, and operating expenses is avoided. If data could not be clearly allocated when determining the key figures, suitable allocation keys were used.

The EU taxonomy defines **sales revenue** as net sales of goods or services including intangible assets. The share of sales revenue associated with taxonomy-eligible economic activities is divided by net sales. To determine the taxonomy-eligible sales revenue, the respective SGL Carbon products were allocated to the taxonomy-eligible economic activities. For the products identified in this way, the corresponding sales revenue with third-party customers for fiscal year 2023 (numerator) was determined and compared to the sales revenue reported in the consolidated income statement (denominator).

Capital expenditures (capex) as defined by the EU taxonomy comprise additions to property, plant and equipment and intangible assets in the financial year under review before depreciation, amortization, and revaluations. Taxonomy-eligible capital expenditures relate to assets or processes associated with taxonomy-eligible economic activities or that are part of a plan to expand taxonomy-aligned economic activities or transform taxonomy-eligible economic activities into taxonomy-aligned economic activities, or that relate to the acquisition of products from taxonomy-aligned economic activities and individual measures that carry out the target activities in a low-carbon manner or reduce greenhouse gas emissions (e.g., energy retrofits). SGL Carbon refers to capital expenditure on property, plant and equipment and intangible assets (denominator). From this, the share of taxonomy-eligible capital expenditures is to be determined (numerator). For this purpose, the products identified via the taxonomy-eligible economic activities were related to the corresponding capital expenditures and, in addition, individual capital expenditures from the purchase of products from taxonomy-eligible economic activities and the implementation of individual measures to reduce greenhouse gas emissions were taken into account. The various taxonomy-eligible capital expenditures were compared to the investments reported in the Annual Report.

Operating expenses (opex) as defined by the EU taxonomy comprise direct, non-capitalized costs relating to research and development and maintenance and repair. Taxonomy-eligible operating expenses relate to assets associated with taxonomy-eligible economic activities or that are part of a plan to expand taxonomy-aligned economic activities or transform taxonomy-eligible economic activities into taxonomy-aligned economic activities, or that relate to the acquisition of products from taxonomy-eligible economic activities and individual measures that carry out the target activities in a low-carbon manner or reduce greenhouse gas emissions and individual building renovations. SGL Carbon refers to expenses for maintenance and repair, renovations, and research and development (denominator). For this, the share of taxonomy-eligible operating expenses is determined (numerator). For this purpose, the products identified via the taxonomy-eligible economic activities were related to the corresponding operating expenses and, in addition, individual operating expenses from the purchase of products from taxonomy-eligible economic activities and the implementation of individual measures to reduce greenhouse gas emissions or building renovations were taken into account. This key figure is determined exclusively as part of taxonomy reporting.

Verification of taxonomy-compliance

Economic activities are taxonomy-aligned (aligned) if they make a significant contribution to at least one environmental goal (compliance with the technical screening criteria). In addition, economic activities must not cause significant harm to the broader environmental objectives (do no significant harm, (DNSH), in compliance with technical screening criteria). In addition, the minimum safeguards for occupational safety and human rights must be observed and respected.

First, the product portfolio of each business unit was reviewed with regard to the description of the activity according to (EU) 2021/2800 Annex I. For this purpose, business unit experts from sustainability, product management, development, and application technology were consulted. If there was agreement, the technical evaluation criteria were reviewed with the same group of experts with regard to a significant contribution to climate protection. Environmental experts from Corporate EHSA were consulted for the subsequent review of the avoidance of material adverse effects. The results were recorded and documented in a structured manner.

An assessment of the essential use of critical substances within the meaning of the opening clauses in Annex C (f) and (g) (“essential for the society”) was not performed. SGL Carbon expects further clarifying regulations in this regard.

In fiscal year 2023, capital expenditures were made related to the acquisition of products from taxonomy-eligible and taxonomy-aligned economic activities and individual measures that carry out target activities in a low-carbon manner or reduce greenhouse gas emissions. Verification of the conformity of this investment (capex (c)), including compliance with the minimum safeguards, must already be performed at the supplier level. However, the suppliers were not able to demonstrate compliance with the minimum safeguards as defined in Article 3(c) of the EU Taxonomy Regulation.

For the economic activity manufacture of automotive and mobility components pursuant to (EU) 2023/2485, only the taxonomy eligibility is reported pursuant to legal requirements. With the new activity 3.18 (manufacture of automotive and mobility components), suppliers now have the option to identify more automotive components as taxonomy-eligible within the framework of the EU taxonomy. This option also includes the composite battery boxes that SGL Carbon produces in the CS business unit.

Minimum safeguards

Minimum safeguards as defined by the EU taxonomy include the OECD Guidelines for Multinational Enterprises, the United Nations Guiding Principles on Business and Human Rights, the International Labor Organization (ILO) Core Labor Standards, and the International Bill of Human Rights. As a signatory to the UN Global Compact and in its internal guidelines (SGL Carbon Code of Conduct, Human Rights Guideline and Supplier Code), SGL Carbon is committed to respecting and protecting human rights and upholding the principles of the UN Global Compact, which are based on the above-mentioned sets of rules. SGL Carbon has introduced a Human Rights Management System, which is part of the overarching and certified Compliance Management System. For the elements of the Human Rights Management System, please refer to the chapters on respect for human rights, responsibility in the supply chain, occupational health and safety, and compliance management in this CSR Report.

The following tables show the taxonomy-eligible (eligible) and taxonomy-aligned (aligned) portions of SGL Carbon's sales revenue, capital expenditures, and operating expenses for fiscal year 2023 in the presentation required by law (see in this regard Regulation (EU) 2021/2178).

As the relevant activities only contribute to one environmental objective in each case, the tables supplementing the templates via footnotes in accordance with Annex II of Delegated Regulation (EU) 2023/2486 have been omitted.

SGL Carbon has no economic activities in the areas of fossil gas and nuclear energy within the meaning of the EU Taxonomy Regulation. Due to the scope of reporting templates 1 to 5 of the Delegated Regulation (EU) 2022/1214, they are not presented in tabular form, since there is no taxonomy eligibility and all reporting forms would therefore contain "no" or zero.

Outlook

In 2025, there will be a reporting obligation for the taxonomy compliance of economic activities in all six environmental goals. According to Article 19(5) of the Taxonomy Regulation, the EU Commission will review technical assessment criteria on a regular basis or at least every three years in the case of activities that are considered transitional activities within the meaning of Article 10(2) of the Taxonomy Regulation. SGL Carbon will take any resulting adjustments to the Delegated Regulation into account in the future.

Reporting form according to EU taxonomy: Sales revenue

				Substantial contribution criteria						DNHS criteria ('Does Not Significantly Harm')									
Economic activities	Code(s)	Absolute turnover	Proportion of turnover	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of turnover, year N-1	Category (enabling activity)	Category (transitional activity)
		€ million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
Manufacture of renewable energy technologies	3.1.	7.1	0.6%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	-	Y	Y	Y	Y	Y	Y	0.6%	E	
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)		7.1	0.6%							-	Y	Y	Y	Y	Y	Y	0.6%		
thereof enabling activity		7.1	0.6%							-	Y	Y	Y	Y	Y	Y	0.6%		
of which transitional activity (T)		0.0	0.0%																
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
Manufacture of renewable energy technologies	3.1.	76.1	7.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								8.0%		
Manufacture of equipment for the production and use of hydrogen	3.2.	0.0	0.0%														0.1%		
Manufacture of batteries	3.4.	15.9	1.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								1.7%		
Manufacturing of automotive and mobility components	3.18.	38.5	3.5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0		
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		130.5	12.0%														9.8%		
Total (A.1 + A.2)		**137.6**	**12.6%**														**10.4%**		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES)																			
Turnover of Taxonomy-non-eligible activities (B)		951.5	87.4%																
Total A + B)		**1,089.1**	**100.0%**																

Reporting form according to EU taxonomy: Capital expenditure (capex)

				Substantial contribution criteria						DNHS criteria ('Does Not Significantly Harm')									
Economic activities	Code(s)	Absolute Capex	Proportion of Capex	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of Capex, year N-1	Category (enabling activity)	Category (transitional activity)
		€ million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
Capex of environmentally sustainable activities (Taxonomy-aligned) (A.1)		0.0	0.0%														0.0%		
thereof enabling activity		0.0	0.0%																
of which transitional activity (T)		0.0	0.0%																
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
Manufacture of renewable energy technologies	3.1.	0	0.0%														0.7%		
Manufacture of batteries	3.4.	1.2	1.4%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								7.0%		
Manufacturing of automotive and mobility components	3.18.	1.1	1.3%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
Generation of heat/steam	4.24.	7	8.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								4.6%		
Capex of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		9.3	10.7%														12.3%		
Total (A.1 + A.2)		**9.3**	**10.7%**														**12.3%**		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES)																			
Capex of Taxonomy-non-eligible activities		77.8	89.3%																
Total A + B)		**87.1**	**100.0%**																

Reporting form according to EU taxonomy: Operating expenses (opex)

Economic activities	Code(s)	Absolute Opex	Proportion of Opex	Substantial contribution criteria: Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	DNHS criteria ('Does Not Significantly Harm'): Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of Opex, year N-1	Taxonomy-aligned proportion of Opex, year N-1	Category (enabling activity)	Category (transitional activity)
		€ million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	Percent	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																				
A.1. Environmentally sustainable activities (Taxonomy-aligned)																				
Opex of environmentally sustainable activities (Taxonomy-aligned) (A.1)		0	0.0%														0.0%	-		
thereof enabling activity		0	0.0%																	
of which transitional activity (T)		0	0.0%																	
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																				
Manufacture of renewable energy technologies	3.1.	4.3	5.3%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								8.5%			
Manufacture of batteries	3.4.	8.9	10.9%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								12.0%			
Manufacturing of automotive and mobility components	3.18.	3.0	3.7%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%			
Opex of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		16.3	20.0%														20.5%			
Total (A.1 + A.2)		**16.3**	**20.0%**														**20.5%**	-		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES)																				
Opex of Taxonomy-non-eligible activities (B)		65.1	80.0%																	
Total A + B)		**81.4**	**100.0%**																	

Y: Yes, taxonomy-compliant activity that conforms to the relevant environmental objective;
N: No, taxonomy-compliant activity, but not taxonomy-compliant with the relevant environmental objective
EL: "eligible", taxonomy-eligible activity for the respective target
N/EL: "not eligible", activity not eligible for taxonomy for the respective environmental objective

Sustainable product innovation

Development activities take place in the four business units and derive directly from the strategic objectives of the product groups or business lines. They are characterized by the respective market developments, customer requirements and the market environment.

Based on the performance of the double materiality analysis in the 2023 fiscal year, the sub-topic "Sustainable product innovations" is not a material ESG aspect in accordance with the Corporate Sustainability Reporting Directive (CSRD). To ensure continuous reporting and given the importance of sustainable products for the economic development of SGL Carbon, we continue to report on the research focus of the individual business units in the section "Research and Development" (unaudited) in the Group Management Report.

Social (including employee concerns)

Occupational health and safety

Health and safety of our employees have top priority at SGL Carbon. As a responsible company, protecting the health and safety of employees is both an ethical obligation and a prerequisite for the company's performance. In this regard, the Code of Conduct and the globally applicable EHSA Guideline (Environmental Health & Safety Affairs) set out the requirements that are binding for all employees. SGL Carbon also attaches importance to appropriate standards for business partners and takes occupational health and safety aspects into account in the selection of suppliers. The Business Partner Code of Conduct valid for all business partners requires them to ensure the health and safety of employees in all workplaces and to establish a management system for continuous improvement. Since 2022, all active suppliers also received an online Supplier Risk Assessment questionnaire on sustainability. The online Supplier Risk Assessment contains standard elements on sustainability that also cover the topics of supply chain responsibility and health and safety. The results of the online questionnaire are incorporated into the risk assessment of each supplier, with the aim of eliminating or mitigating the risks identified (detailed information on the Supplier Risk Assessment can be found in the Governance chapter of this report).

The central corporate EHSA unit (Environmental Health & Safety Affairs) is responsible for drafting Group-wide guidelines and standards for preventing work-related accidents and diseases. The respective business and central corporate units and site management are responsible for implementing the specifications. Within the global EHSA network, the central corporate EHSA unit and local EHS managers also discuss overarching issues. This is to ensure that all legal and SGL-internal regulations are complied with and that corresponding systems are established at each site. In addition, the central EHSA unit, in cooperation with the local EHS managers, conducts audits that also evaluate, among other things, the implementation of the Group-wide occupational health and safety standards and their advancement. EHSA audits also include compliance with energy and environmental standards. As a rule, the sites are inspected by the central corporate EHSA unit every three years, or more often if incidents have frequently occurred at any given site. A total of nine sites were audited in 2023, with some of these audits performed remotely (via virtual video). EHSA reports to the HSE Council (Health, Safety & Environmental Council) and provides updates three times per year. The HSE Council is composed of the two members of the Board of Management of SGL Carbon, the heads of the business units and central corporate units and the global corporate EHSA team, with the Chairperson of the Board of Management also serving as Chairperson of the HSE Council. This body is responsible for monitoring and controlling occupational health and safety measures.

SGL Carbon's top occupational health and safety goal is to systematically prevent work-related injuries and diseases. It is the responsibility of the company's management, all management levels and each individual employee to ensure safe working conditions and to comply with all relevant national laws, European regulations and internal guidelines in all production processes. As a short- and medium-term objective, we have set for ourselves the goal of constantly improving the existing security measures. In the recent fiscal years, we have succeeded in reducing our lost-time injuries (accident-related absence of workers and temporary workers from the workplace for more than 24 hours) with lost time per million working hours each year. After an LTI frequency rate of 2.8 in 2021 and 2.3 in 2022, we exceeded our target of an FR $\leq$ 2.4 in 2023 with 1.6. Three business units (BU CF, CS and PT) were accident-free in 2023; BU PT has been accident-free for 881 days, BU CF for 648 days and BU CS for 419 days (each as of February 15, 2024). Since 2021, a reason for the successful development was the implementation of processes in which we learn effectively from accidents with downtime and near misses and transfer best practice examples from individual locations to all other locations. Monthly calls were held with all locations worldwide in 2023 to present and analyze reportable accidents, including the causes of accidents and corrective actions, as well as near misses (17 in 2023) and 18 examples of "Best Practice". We aim to reduce our LTI frequency rate by 5% annually by 2025.

To achieve the occupational health and safety targets, SGL Carbon uses a variety of incentive systems that actively involve employees in accident prevention and that take their ideas to eliminate accident risks into account. At the Bonn, Meitingen, Limburg and Wackerdorf sites, 171 valuable suggestions for improving safety were submitted in the scope of the ideas management process (deadline: December 31, 2023), 124 of which were processed and completed (deadline: February 20, 2024). The remaining 47 are currently being implemented. A Safety Award is also presented annually to sites where there have been no accidents in the last three years. Fourteen sites received this award in 2023. On the local level, the topic of occupational health and safety is included in the annual targets of many sites. But even when we look beyond the local sites, the topic of occupational health and safety is specified as a target figure of the variable compensation structure for the four management levels below the Board of Management. To further raise awareness of occupational safety throughout the workforce, a Group-wide "Safety Day" was held again in 2023, with active participation also by the Board of Management and management team. On August 31, 2023, information events and live training sessions were held at all SGL sites worldwide. At all production sites, information and training was also provided in particular on the important occupational safety topics: safe working with rotating parts, hazards at workplaces with rolls and rollers, the use of appropriate protective equipment and avoiding accidents caused by tripping, slipping and falling.

Safety Day Logo:

Occupational accidents that occur despite all precautions and safety standards are recorded in the Group-wide accident management system. In a systematic process, incidents are investigated, suggestions for improvement are derived and consideration is given to which solutions have already proven effective in preventing accidents. Accidents are stringently classified according to severity. There have been no fatal accidents at SGL in the last six years. Once a month, the central corporate EHSA unit provides the Board of Management of SGL Carbon, the heads of the business units and the sites, and the EHS managers with a safety report and relevant statistics. In addition, weekly reporting is carried out to track the current safety situation with detailed information on new accidents. This makes it possible to evaluate compliance with the health and safety guideline and immediately initiate countermeasures if a negative trend can be discerned. Furthermore, a monthly exchange between the sites takes place so that those involved can learn from each other and avoid risks identified at other sites.

The applicable safety precautions and standards are constantly being developed to further reduce the frequency of accidents. In the 2021 fiscal year, a global safety manual with minimum standards was developed and the ten most important rules for protecting occupational safety were clearly illustrated graphically to all employees. The global occupational safety policy was additionally updated in the 2022 fiscal year. Numerous initiatives were also made possible. Almost 60 plant visits including safety inspections were conducted and approx. 170 improvement opportunities were identified, of which approximately 73% have now been implemented. Various local programs were also carried out. In 2023, 6,308 behavior-based observations (BBO) were carried out in China: 2,132 observations had a positive result and 1,242 observations showed opportunities for improvement. 89% of these findings have already been implemented. The results of the BBOs steer our program towards improving safety at our Chinese sites in subsequent years. SGL Carbon also conducts employee training courses. Training is provided not only by EHSA experts but also by managers who were required to train and support employees in their areas of responsibility regarding safety issues. This is intended to increase the workforce's awareness of safety-relevant aspects and to prevent accidents.

Process safety is a significant factor in the prevention of occupational accidents. Events such as accidents, fires or explosions could cause significant harm to people and the environment as well as lead to prolonged interruptions of production and loss of quality at SGL Carbon. Claims for compensation and damage remediation could arise from this. The goal is therefore both to ensure the safety of production processes as best possible and to achieve continuous improvements in the safety culture. SGL had no serious accidents in terms of process safety in 2023.

As part of its corporate duty of due diligence, SGL Carbon drafted a globally applicable Process Safety Policy and has maintained a Process Safety System since 2017. The system includes a variety of different components, such as process safety analyses, accident investigations and countermeasure control. Process safety is also a topic of discussion at HSE Council meetings. In addition, every accident is precisely recorded, analyzed and classified in the Incident Management System for occupational and process safety. This is done to determine whether an incident occurred in occupational health and safety or process safety. SGL Carbon uses a uniform Group-wide risk management system to identify and, if necessary, minimize risks in its production processes. This involves analyzing the extent and hazard potential of crisis events and calculating their economic consequences – such as the costs of eliminating environmental harm or loss of sales revenue due to production downtime. For each primary risk, one or more risk mitigation measures were identified and will be initiated if necessary.

SGL Carbon conducts annual reviews in cooperation with a property insurance company. This involves subjecting many processes and plants to a safety analysis that primarily focuses on fire control and protection as well as operational interruption. The results are evaluated and documented. Specific measures for improvement are drawn up if necessary. A total of seven sites were assessed in 2023. Also in 2023, the insurer continued high-level training on fire control and protection system design to a group of technicians.

Employee concerns

General information

SGL Carbon employs a total of 4,808 people in 29 locations in Europe, Asia, and North America (as of December 31, 2023). Their commitment, expertise, and performance make a crucial contribution to the company's success as a business. That is why SGL Carbon strives to attract the best talent and to develop and retain employees in a targeted manner. In addition to training and education opportunities, SGL Carbon also relies on a fair and value-based work and management culture that embraces diversity as well as a compensation structure based on performance. The company offers all employees the opportunity to develop their full potential. This understanding of the company's relationship with its employees is defined in the Code of Conduct, the SGL Competence Model, and the SGL Value Carta. The latter was formulated in 2022 and includes five values that now form the basis of SGL's performance culture:

- Integrity and honesty
- Respect and appreciation
- Accountability
- Trust
- Passion for success

At SGL Carbon, Human Resources is viewed as a strategic partner and adviser to the business units, central functions, managers, and employees. The spectrum of HR tasks ranges from initiator to involvement in strategic decisions to operational HR processes.

In accordance with the wide assortment of tasks, the HR Business Partners are positioned both centrally for the business units and central functions and on the local level for the individual production sites. The SGL HR Business Partner model is structured so that the Senior HR Business Partners, i.e., the contact persons for the management of the business units and central functions in all strategic HR issues, report to the Head of Group Human Resources in disciplinary and technical terms, as do the Heads of HR at the two overarching BU sites in Meitingen and Charlotte. HR management is responsible for a wide array of tasks:

- Management of HR processes such as recruitment and supporting personnel, including labor law issues
- Qualification, coaching, and continuing education of managers and employees
- Development of market- and performance-oriented compensation systems for senior management
- Development of the SGL performance culture
- Global HR controlling and personnel planning
- Positioning of SGL Carbon as an attractive employer in the labor market and internal employee communications
- Efficient management of the impact of change processes in human resources

In addition to efficiency, customer proximity and service quality are key criteria in the design and implementation of HR processes. Against this backdrop, SGL Carbon is implementing a comprehensive cloud-based IT solution for these processes. The staggered go-live of this IT system began in fiscal year 2021 and continued in the two subsequent years. In the reporting year it should be highlighted that access to the digital learning platform was established for all production employees worldwide ("access for all") through appropriate infrastructure and process measures.

The HR unit reports directly to the Board of Management on a regular basis. For example, the Head of Group HR holds regular consultations with the Board of Management, thus giving HR issues a high level of attention from senior management.

SGL Carbon constantly monitors and minimizes potential risks in the area of personnel. Due to the increasing shortage of skilled workers, special attention is paid to the strategic importance of recruiting. The same applies to employee engagement efforts. These are intended to counteract a high level of fluctuation, thereby also retaining expertise in the company and, in particular, preventing the departure of crucial “key employees."

Employability and development (including values and culture)

A material objective of the work of HR is to maintain the employability of employees and nurture their professional and personal development. Systematic development of personnel is an integral component of SGL Carbon’s corporate philosophy. Such development serves to bolster the competitiveness of the company and incentivize the company to take responsibility for the employees. Another component of personnel development entails initiatives that assess the potential of employees to serve in management and expert positions.

In 2021, the SGL Top Talent Program was launched and serves to identify and foster talented employees with medium- to long-term potential for leadership positions in senior management. In the year under review, the program was continued with a number of activities, including the continuation of the internal training series “Inhouse Leadership Exchange” and one-on-one meetings with mentors from top management.

The format for up-and-coming nominated individuals launched last year called, the "People Fair/Personnel Conference" was paused in 2023 for resource-related reasons, but will be held again in the following year.

Succession management is a proven personnel and management development tool. In 2021, dedicated succession planning was performed for the first time for the top management levels. In addition, a uniform framework was compiled in 2022 and implementation was started according to which all business units and corporate functions plan and manage succession for key positions critical to the company’s success. By 2023, all business units and most corporate functions will have introduced this standardized succession management. Because of our knowledge about the (non-)availability of suitable internal employees, we can now make faster and better personnel decisions in the event of vacancies, and the rate of internal appointments can ideally be increased.

Development of personnel is not the responsibility of the HR department alone but is primarily a task for managers and thus within the scope of personnel management. The cornerstone of all personnel management is communication between managers and employees on a regular basis. That is why the “Management Dialogue” was rolled out in 2021 as a discussion format in the job areas not subject to collective bargaining agreements. The Management Dialogue involves managers and employees taking sufficient time to exchange information, provide mutual feedback, and solve problems together once per month. This conversation format was also continued in 2023. Another element in the creation of a feedback culture in the company was the launch of a new 360-degree feedback tool and process. After the pilot phase in 2021 with managers who report directly to the Board of Management as focus individuals, the application was continued in 2022, particularly with participants in the Top Talent program. In the reporting year, 360-degree feedback processes followed for an additional 37 managers from upper and middle management and the upper pay scale.

A management development program for middle management was designed and planned in 2023 as a new and future central component of management development. The external training company we partnered with was selected in a multi-stage process involving the Board of Management, among others. The multimodular program was methodologically designed with a total of 10 training days, over 15 to 18 months, and combines classroom training with virtual group learning and self-directed e-learning. The content includes all the central topics and requirements of modern personnel management. Under the program title "Leadership4Performance," the first group of participants will start in January 2024.

Employer attractiveness is a key factor of a corporate culture, determining the company’s ability to both attract and retain personnel resources that are critical to success. For many years, SGL Carbon has been positioning itself in the labor market with its own employer brand that can be clearly discerned on the company’s careers page as well as elsewhere. The career site is constantly being developed. To support recruitment, the "Employees recruit employees" program, which had already been in place at the Meitingen site, was expanded to all German sites in the reporting year. In addition, a "Talent Attraction" Center of Excellence was implemented, which supports managers with active sourcing (i.e., directly approaching candidates) in recruiting for selected specialist and management positions.

Number of staff	2023	2022
Number of employees	4,808	4,760
Number of new hires (worldwide) [1]	570	504
– thereof men	77.2%	81.3%
– thereof women	22.8%	18.7%
Fluctuation rate (worldwide) [2]	14.9%	14.2%
– Europe	10.2%	11.4%
– North America	34.4%	27.7%
– Asia	15.2%	11.2%

[1] Exclusively includes “real” new hires for employees with non-limited term contracts, i.e., not taking over temporary employees or removing limited terms on employment contracts.
[2] Based on the average headcount, includes employees leaving the company voluntarily and involuntarily.

The goal of standardizing the process globally to the extent that this is possible and makes sense, taking into account the legal and cultural framework in the individual countries, was already largely achieved in the year under review. The relevant cloud-based IT solution covers all SGL countries, with a few exceptions representing less than 5% of SGL’s workforce. To simplify the application process and improve the candidate experience, the "Apply with LinkedIn" function was introduced on the electronic application platform in 2023, allowing job applicants to link their application to their social media profile. As a voluntarily provided fringe benefit that makes a positive contribution to employer attractiveness, SGL Carbon offers employees in Germany a forward-looking, contribution-based, and securities-linked company retirement benefit plan that provides additional financial security during retirement. Occupational health and safety issues play a prominent role in SGL’s culture and this also applies to preventative measures regarding employee health. In the area of Workplace Health Management (WHM), employees in Germany can take advantage of a variety of different resources on a decentralized basis, that is, on the level of the individual plants. During the year under review, flu vaccinations were performed at various locations.

Employee surveys are both an established method for analyzing corporate culture and the basis for actively shaping it. In the 2022 fiscal year, a Group-wide, exclusively electronic employee survey called THE VOICE was conducted in the context of the recently launched Group initiative “Performance Culture & Values." THE VOICE records various aspects of the perceived performance culture – to what extent are SGL’s five values already being lived, to what extent do employees feel emotionally connected to the company (employee engagement), to what extent is employee management perceived as effective, and how likely would people recommend SGL as an employer – and provides corresponding indicators (KPIs). A key outcome indicator is the Performance Culture Index, which reflects the perceived realization of the desired performance culture and comprises the three aspects of "Living the SGL Values," Employee Engagement," and "Leadership Effectiveness." The Performance Culture Index is calculated as the average approval rating of the underlying statements in the survey and can therefore range from 0% to 100%. When THE VOICE was first implemented in the fourth quarter of 2022, the survey results indicated a need for action, which was addressed in the reporting year with almost 200 centralized and decentralized measures. Approximately 1,500 managers and employees were involved in these initiatives to strengthen the performance culture and SGL values as participants and those responsible for implementation. 9% of the measures were aimed at SGL as a whole, while 25% were formulated for specific areas, i.e., for an entire business unit or corporate function. The majority of initiatives (66%) took place locally, i.e., at and for the locations and usually with local managers. The 198 initiatives could be assigned to the following categories according to their main activities:

- Culture and value workshops (19%)
- Learning and development (12%)
- On-site communication (12%)
- Workplace, conditions, processes (11%)
- Value-specific measures (11%)
- Social events (8%)
- Recognition (6%)
- Occupational health & safety (5%)
- Onboarding (4%)
- Other measures (12%)

To monitor and measure the development of the SGL performance culture, THE VOICE 2023 was performed, as planned, in May and at the end of November/beginning of December. The results of both follow-up surveys showed significant improvements compared to the initial values of the first survey.

The next major milestone in the development of our performance culture is the design and implementation of a "Purpose Statement" for SGL Carbon. This should summarize the purpose of the company for employees, customers and all other stakeholders in a concise and inspiring way. In the reporting year, significant effort was expended on this especially at the global management conference in October, so that a communication campaign for the purpose statement can take place in the first half of 2024.

Training and education

Training has traditionally played an important role at SGL Carbon. The company's training program in Germany comprises a total of eleven technical apprenticeships and business administration traineeships as well as three cooperative study programs. A total of 23 trainees and apprentices successfully completed their training and apprenticeship programs in the year under review. One apprentice from the Bonn site was named Chamber best in the industrial mechanics training course, while an apprentice in ceramics testing technology won a prize from the Alexander Tutsek Foundation. Two apprentices at the Meitingen site also received awards for their qualifications in 2023: One as Swabia's best electronics technician for industrial engineering, and the other as the best in Germany in the process mechanics apprenticeship. The latter trainee also received the Günter Schwank Award for outstanding achievements in plastics training. The rate at which trainees and apprentices who graduated from their programs in 2023 were offered permanent employment was 100% in Germany.

SGL Carbon offers employees professional and personal development opportunities throughout their careers, including additional training and continuing education courses, the expansion of tasks and areas of responsibility within a position, and the opportunity to change jobs within the organization. In meetings held on a regular basis, the manager discusses with the employees specific individual development activities such as training, coaching, or special tasks.

For the top talent target group – employees with the medium- to long-term potential for a management position reporting directly to the Board of Management – an internal training measure entitled "Inhouse Leadership Exchange" was performed in 2022 and 2023 as part of the Top Talent program. In both years, this comprised several classroom modules combining individual reflection, collegial exchange, conceptual work on leadership and corporate culture issues, and skills training.

The cloud-based IT system rolled out in 2021 to support HR processes also includes a learning management system (LMS). This system facilitates not only the effective administration of training activities by HR and individual departments but also the immediate provision of training sources for end-users as part of a "self-service" functionality, which includes e-learning courses that one can immediately access. These offerings were expanded in the year under review. Particularly noteworthy among the new offerings are language training courses in blended learning format (English and German as a foreign language) as well as e-learning courses on ten particularly popular topics surrounding communication, leadership, and self-competence, which are available in four languages (German, English, French, and Chinese). This is in line with the continued goal of establishing the learning management system worldwide as SGL Carbon's central learning platform in the coming years.

Apprenticeships and dual degree programs	2023	2022
Total apprentices	68	70
– Site Meitingen	35	44
– Site Bonn	29	25
– Site Limburg	0	0
– Site Willich	4	1
Number of professions for apprentices	11	7
Number of apprentices	23	32
Number of dual degree programs	3	3

Diversity and equal opportunity

The diversity of the workforce is a strategic advantage for SGL Carbon: A variety of different employee skill sets and perspectives reinforces the company's capacity to innovate and advance its position as an attractive employer. Such diversity makes it possible for SGL Carbon to compete for qualified specialists, which enables SGL Carbon to also meet the challenges arising from demographic change.

SGL Carbon has set itself the goal of establishing a work and management culture that is free of discrimination. All employees should be able to contribute their personal and professional capabilities and have the same opportunities for professional success and fair pay regardless of age, lineage, (ethnic) origin, skin color, gender, sexual orientation or identity, religion, ideology, or disability.

The SGL Code of Conduct is an important basis for the company's commitment to diversity and equal opportunity. SGL Carbon's guidelines for a diverse and inclusive working environment characterized by trust, openness, and respect are embedded in it. In accordance with these guidelines, discrimination based on any of the characteristics listed above will not be tolerated. The SGL competency model, which was revised in 2021 describes key behavioral requirements that are applicable to middle and senior management throughout the world, also includes "collaboration and diversity" as one of seven skill sets, thus reflecting the importance of diversity. The same direction can be found in the SGL Value Carta, which was developed in 2022 and communicated to the company, and which forms the basis of SGL Carbon's corporate culture. Of the five values mentioned, three – "Respect & Appreciation," "Integrity & Honesty," and "Trust" – directly contribute to the work environment characterized above.

A higher proportion of women in management positions can have a positive impact on SGL Carbon's success as a business, making it important for the future global development of SGL Carbon. The target of permanently increasing the proportion of female senior executives to 20% by 2025 was already achieved by the end of 2022 – and was further increased to 22% in the reporting year. The proportion of women in the total workforce increased by one percentage point to 18% at the end of 2023.

SGL Carbon applies the local systems of collective bargaining agreements or systems similar to this to ensure that remuneration is free of discrimination. For remuneration of employment that is not subject to collective bargaining agreements, the recognized analytical job evaluation procedure according to the Hay method is in use throughout the world.

Internationality	2023	2022
Total workforce	4,808	4,760
thereof Germany	2,100	2,051
thereof rest of Europe	1,388	1,375
thereof North America	762	781
thereof Asia	558	553

Percentage of women	2023	2022
Total workforce	18%	17%
thereof Germany	18%	17%
thereof rest of Europe	18%	17%
thereof North America	20%	18%
thereof Asia	14%	14%
Senior management	22%	20%
Middle management	18%	16%

Age structure	2023	2022
< 30 years	12%	16%
30 to 50 years	57%	55%
> 50 years	31%	29%

Help provided to employees in balancing the responsibilities of work and family plays a crucial role in an employer's attractiveness. This purpose is served by regulations that allow flexibility in the workplace, so that the service does not necessarily have to be provided at an SGL location. Since October 2022, the new general works agreement "Mobile Working" has been in force in Germany, which has significantly simplified flexibility. The proportion of mobile working – for example, from home – can generally amount to up to 40% on average of individual weekly working hours, in consultation with the respective manager and if the employee's job permits this. Furthermore, part-time employment offers employees the opportunity to balance their professional and private lives. Women are still more likely to work part-time than men in the SGL workforce in Germany. Compared to the previous year, the respective quotas have risen slightly for men and fallen for women. Overall, the part-time ratio has remained unchanged.

Part-time employment and reconciliation of work and family	2023	2022
Percentage of part-time employees in Germany [1)]	9.9%	10.0%
Male part-time employees (Germany) [1)]	5.6%	5.3%
Female part-time employees (Germany) [1)]	29.6%	34.0%

[1)] This is based on a period analysis, i.e. all employees who worked part-time continuously or for just one period (e.g. parental leave) in the respective calendar year are included. Part-time employees, students and temporary workers are excluded.

Respect for human rights

SGL Carbon attaches particular importance to demonstrating respect for human rights. For this reason, the various elements of a human rights management system have been gradually introduced since 2018. SGL Carbon's fundamental commitment to respecting human rights is set out in the SGL Carbon Code of Conduct. In it, the company has committed itself to upholding the principles of the UN Global Compact and to respecting and protecting human rights. SGL Carbon has also been a UN Global Compact signatory since 2021. Respect for human rights is further elaborated in the Employees chapter of the Code of Conduct. This section also refers to the Human Rights Policy introduced globally in 2018. This policy was updated in the past fiscal year and continues to be available in a total of nine languages and included in the hiring documents at all SGL sites. Group Compliance has this confirmed annually by the Local Compliance Representatives (LCRs) at the sites using the implemented LCR reporting.

In the past reporting year, the Board of Management of SGL Carbon created the function of a Human Rights Officer reporting directly to the Board of Management and commissioned the Head of Group Compliance to perform this role for SGL Carbon. This is the result of the steadily growing requirements for monitoring compliance with due diligence obligations to respect human rights in its own business unit and along the supply chain, including the Supply Chain Due Diligence Act (LkSG), which applies to SGL Carbon starting in January 1, 2024.

A risk assessment on compliance with human rights within the company's own business unit was performed for the first time in 2019 as part of an internal questionnaire to identify potential human rights risk based on external standards from the "Human Rights Compliance Assessment Quick Check" of the Danish Institute of Human Rights. In 2023, a Human Rights Impact Risk Assessment was performed for all SGL sites and operating companies using the Integrity Next platform. During this process, an abstract risk analysis was also performed using the country and industry risks stored on Integrity Next as well as a specific risk analysis using standard questions related to health and safety, the environment, handling hazardous substances, human rights, diversity and equal opportunities and remuneration. These questions were then answered by the respective local compliance representatives with the support of other responsible persons from the relevant EHS and Human Resources departments. The assessment was evaluated centrally by Group Compliance and open points will be analyzed in the next step with individual LCRs, Corporate EHSA and Group HR. For information on respect for human rights along the supply chain and the corresponding risk management, please refer to the chapter "Responsibility in the supply chain, export controls, and customs" of this CSR Report.

Group Compliance and Group HR together rolled out a two-stage training concept on compliance with human rights for all office workers worldwide in the second half of 2021. The training concept is based on online training as basic training and virtual classroom training including practical examples around discrimination, harassment and bullying. The online training, which is available in a total of nine SGL languages, was made available to the target group via the internal learning management system (LMS) newly named in People Portal and is now also part of the on-boarding training program for all new employees in the target group. The virtual classroom training was conducted worldwide by Group Compliance and Group Human Resources, in some cases with support by the local HR and/or legal department. In 2022, all employees in the identified target group consisting of 1,783 employees had completed the online training and 93% had already taken part in one of the 63 virtual training courses offered. Both the online and virtual training courses for new employees were continued in 2023. By the end of the year, 99% of the target group completed online training and 60% also took part in virtual training. For employees working in production, a corresponding training concept was developed by Group Compliance and Group HR in 2022 and approved by the Compliance Committee. This training concept also includes a two-stage learning concept. A chapter on human rights was therefore added to the newly created online training on the Code of Conduct, initially in English and Spanish. The gradual roll-out for production employees started at the US sites in March 2023. By the end of the year, 97% of production employees in the US had completed online training. At the same time, the online training for the global roll-out was translated into an additional seven SGL languages and uploaded to the People Portal. The prerequisite for the roll-out outside the US was the implementation of the joint project "Access for all" by Group HR and ITX, which enables access to the SGL People Portal for all employees in Europe and Asia. This project was successfully implemented at the European and Asian locations in the past fiscal year. The online training on the Code of Conduct including human rights can thus be rolled out at the remaining SGL sites starting in January 2024. The future classroom training on human rights for production employees was also finalized and approved as a key issue at the Regional Compliance Conference (see also the Compliance Report). The roll-out of the classroom training will take place after participation in the online training and will begin at the US locations in early 2024.

Group Compliance already added a corresponding section to the compliance questionnaires for the sites in 2022 regarding a regular survey on respect for human rights and compliance with national labor law requirements. In the second half of each year, the LCRs provide corresponding information regarding their locations. In addition, the compliance risk category Human Rights was part of the Compliance Risk Assessment 2023 (see also the Governance section) and the annual risk assessment by the risk management system (RMS).

Alongside the existing whistleblower system, a dedicated reporting channel for violations of the Human Rights policy was launched in 2018 in order to more effectively and directly enable employees and managers to report possible violations of the rules on respecting human rights. This new channel is described in the Human Rights Policy. Reports received are received centrally by Group HR and Group Compliance on a confidential basis, systematically processed in compliance with data protection regulations, sanctioned appropriately where necessary and reported to the Board of Management as part of the semi-annual Compliance Report. In the 2023 fiscal year, five of the fourteen reports received by Group Compliance related to employee complaints fall under Human Rights and the Code of Conduct. Three of the cases related to the leadership behavior of a supervisor, one concerned possible unequal treatment in granting the ability to work from home and one allegation of sexual harassment by a colleague. In three of the five cases, the internal investigation performed did not reveal any violations; in two cases the investigation was still pending at the time of writing.

Social commitment

SGL Carbon is an internationally active company, but also a local neighbor in several regions of Europe, Asia and North America. As a company, we therefore strive to be a reliable partner in all matters and go beyond our business activities by assuming social responsibility for the people where we operate. We mainly support projects that have a local or subject-matter connection to the company, with a clear focus on promoting training and further education topics.

The formal basis for SGL Carbon's social commitment is its Sponsoring and Donations Policy. It specifies the Group-wide standard and is binding for all SGL Carbon employees, ensuring that the funding and selection of projects is transparent and follows uniform guidelines. Management of the respective location makes decisions on the funding of specific projects, initiatives, institutions and associations up to a single amount of €5,000. If the amount for sponsorships and donations is above this amount, the Board of Management must approve it. The Capital Markets & Communications department is also to be informed. No violations of the guideline were identified in the year under review.

We are involved in promoting education and training topics at the schools in the regions in which we operate. An example of this is the Meitingen site, where there are school partnerships that give students an insight into the corporate world and that are also aimed at promoting a better understanding of technical and skilled professions. We also supported a digital project in cooperation with a secondary school in Meitingen. A book project to improve road safety for children is particularly close to our hearts, as safety is always a top priority at SGL Carbon.

As a responsible company, we also want to act in accordance with our values. Equal treatment, diversity and respect for human rights are the basis of our actions and our success. Therefore, it was especially important to us to commemorate the victims of persecution and forced labor during the Second World War in the form of a cultural memorial on our company premises in Meitingen.

In addition to this selection of current projects, we particularly support sports and youth clubs, charitable initiatives and local projects around our sites that offer direct added value for the local community.

Governance

Compliance management

As a group that operates globally, SGL Carbon bears a special responsibility in its dealings with employees, customers, business partners, shareholders, and the public throughout the world.

The structure and implementation of the SGL Carbon Group's compliance management system (CMS) are therefore in accordance with German and international standards such as IDW PS980 and ISO 37301:2021. Following successful external first-time certification of the CMS in 2020 – initially according to the ISO 19600:2016 guideline and subsequently in 2021 via an initial surveillance audit in compliance with the new ISO 37301:2021, upon expiry of the three-year validity period for the certificate in 2023, ISO recertification according to the criteria laid down in the ISO standard 37301:2021 was obtained from the accredited certifier Austrian Standards.

The Code of Conduct is an important aspect of compliance management, as an integral component of SGL Carbon's management and corporate culture. It sets standards for responsible and lawful conduct. The principles and values anchored in the Code of Conduct support the personal integrity of our employees and strengthen our corporate culture. This includes ensuring that all managers and employees comply with internal and external regulations and that ethical and sustainable principles determine their actions. In addition to the Code of Conduct, SGL Carbon's compliance program includes additional internal requirements, guidelines and training for various target groups and specific topics (for further information, please refer to the Corporate Governance Declaration, Corporate Governance and Compliance Report in this Annual Report). A material component of this is the anti-corruption program (see section "Anti-corruption and bribery").

The Chief Compliance Officer reports directly to the Board of Management and is responsible for the compliance strategy as well as for monitoring the structures and processes of the compliance management system (CMS). They are supported in their work by the Group Compliance department. The organization also includes the Compliance Network, which is made up of regional and local Compliance representatives as well as Compliance representatives from the business units and central functions (for additional information, please refer to the Corporate Governance Declaration, Corporate Governance and Compliance Report in this Annual Report).

The CMS is reviewed for effectiveness and efficiency on an ongoing basis. To measure achievement of the compliance targets, SGL Carbon has put various measures and indicators in place for the CMS and its components. These KPIs are published on the SGL website under Compliance. Furthermore, the aim is to respond appropriately to new legal requirements and changes in the business environment. In consultation with the Compliance Committee, each year the Group Compliance department identifies and defines areas in which action needs to be taken, along with measurable annual targets approved by the Board of Management. The target achievement results, and any follow-up activities derived from them, are summarized in an annual review.

Regular risk assessments covering the identified compliance risk areas of SGL Carbon, which are summarized in the “House of Compliance,” are a material part of the effective CMS. In the past fiscal year, the risk assessment focused on the human rights compliance category (see the “Human rights” chapter in this CSR Report). Group Compliance also regularly performs the risk analysis for the following compliance risk areas: antitrust, anti-corruption, protection of trade secrets, and export controls. It most recently did so in 2021/2022 in the form of top-down interviews with the members of the Business Unit Management Committee and the corporate function heads. This is due to be repeated in 2024. These issues also formed part of the compliance risk management system.

The CMS further stipulates that compliance issues are to be regularly documented by the local compliance representatives (LCRs) and the responsible compliance representatives of the business units as part of the relevant reporting process. Group Compliance confirms the implementation of the compliance program at the local sites by means of a semiannual LCR compliance questionnaire. The findings resulting from the evaluation of the questionnaires are discussed in detail with the Board of Management and the Audit Committee. They also serve as the basis for repositioning compliance activities if necessary. All LCRs submitted semiannual LCR reports for the corresponding reporting period.

In addition to regular conference calls, every two years regional Compliance conferences take place in order to ensure that knowledge is transferred between the Compliance Network and Group Compliance. For the first time since 2018, these regional Compliance conferences took place again as in-person events in the Europe, North America, and Asia regions (see “Compliance report” in the Annual Report 2023).

Against the backdrop of a constantly evolving legal framework, SGL Carbon continuously optimizes the content of compliance training and identifies the corresponding training needs. The Code of Conduct e-learning program provides the corresponding baseline training on compliance issues for all new office workers. It focuses especially on teaching our principles and values, which promote acting with integrity in the course of daily business. This training is used worldwide and is available in German, English, Chinese, French, and Polish. An automated verification process adds new employees in the target group to the group of participants in the e-learning training on an ongoing basis via the internal learning platform (LMS). All office workers must complete additional mandatory compliance online training courses on human rights, anti-corruption, and export controls as part of their onboarding.

Group Compliance developed online training for production staff during the past fiscal year, so that in the future the Code of Conduct e-learning program can be offered to all employees. Additional departments and local sites were involved in shaping the course content via the relevant LCRs. This training is available in all nine SGL languages. It was rolled out to the US sites in March 2023 (see also the “Human rights" chapter in this CSR Report). 97% of production employees at the Group’s US sites have already received this training. Due to technical availability issues, the roll-out to the Group’s other regions is due to begin at the start of 2024.

Regular internal compliance audits form part of the CMS. For this purpose, the Group Compliance department and Group Internal Audit (GIA) have jointly developed an audit catalog, the appropriateness of which is subject to a joint annual review. Reviews pay particular attention to findings from reported compliance violations and changes in the compliance program. Group Internal Audit incorporates this audit catalog into its regular audits (see also the Risk Management System section of this Annual Report). In addition to compliance with legal and in-house rules, these audits also cover the observance of ethical standards, which are also addressed in the annual LCR compliance questionnaire. GIA reviews, among other things, whether compliance topics are regularly placed on the agenda of local site committee meetings, and thus whether site management fulfills its legal responsibility and serves as a leadership and compliance role model (”tone from the top”) in terms of addressing compliance on site and, at a local level, requiring lawful behavior and integrity and ensuring that people act accordingly. The status of SGL Carbon's compliance culture is also assessed in the course of the regular global internal compliance survey that is carried out by Group Compliance. Group Compliance also draws up improvement suggestions for the compliance program on the basis of compliance incidents. Lastly, the annual external audit performed in connection with the ISO 37301 certification confirms that the compliance management system also contains the required elements of an integrity management system. Moreover, an internal CMS system audit is due to be performed in 2024 in order to obtain information as to whether the CMS implemented complies with SGL Carbon's own requirements as well as the criteria of the ISO standard 37301:2021. SGL Carbon strives to create an environment in which all concerns relating to compliance can be openly discussed." All employees are encouraged to raise any integrity issues and questions with their supervisors, the Compliance department or a member of the Compliance Network. They are also explicitly taught to do so in the Code of Conduct training course. In addition to the existing communication and reporting channels, SGL Carbon has a whistleblower system in the form of its "Compliance Help Desk." This system makes it possible for employees to confidentially report information on potential compliance violations in accordance with the Whistleblower Policy. The Whistleblower Policy also provides for mandatory protection of the person submitting a report. SGL Carbon will not tolerate any form of punishment, recrimination, or discrimination against employees as a consequence of making a report in good faith in accordance with this policy.

This principle applies in all cases, whether or not a reported incident ultimately proves to be a violation. The whistleblower mailbox is available to all employees internally through the SGL intranet and to third parties via SGL Carbon's website. Anonymous reports are also accepted and, where sufficiently substantiated, investigated.

The whistleblower system can also be used to submit reports regarding human rights or environmental risks in the supply chain and within the scope of the business operations of SGL Carbon and its subsidiaries. Guidance on how to submit reports and complaints in accordance with the requirements of the German Act on the Protection of Whistleblowers (HinSchG) and the German Supply Chain Due Diligence Act (LkSG) – which is applicable for SGL Carbon from January 1, 2024 – was approved in the past fiscal year in addition to the existing Whistleblower Policy, translated into all of the local languages for SGL's sites and published on SGL's website.

Group Compliance reviews reported compliance incidents in the context of internal compliance investigations. The department's task is to ensure that misconduct and violations are prevented and identified in due time, that the company's activities comply with applicable law and statutory provisions, and that potential for improvement with regard to internal business activities is identified.

In the reporting period, SGL Carbon recorded all reports of potential violations relating to antitrust law, anti-corruption, export controls and customs, protection of trade secrets, fraud prevention, and human rights (such as discrimination and harassment) that, in addition to breaching the law and/or internal rules, could also result in financial or reputational damage. All such reports were processed, so as where necessary to determine and implement specific measures. Individual sanction and disciplinary measures were also determined in accordance with local labor laws and regulations and implemented by the responsible local human resources departments. SGL Carbon is convinced that the compliance management components and monitoring processes described are suitable for creating the best possible basis for ensuring that future conduct is legally compliant in all areas of the SGL Carbon Group.

Anti-corruption and bribery

Good relationships with customers and suppliers are essential for ensuring the positive economic development of SGL Carbon. SGL Carbon fosters and requires transparent and lawful execution of all company business. On this basis, SGL Carbon seeks to promote trust and ensure long-term business relationships. SGL Carbon's anti-corruption management system was externally certified to the ISO 37001:2016 standard in the past fiscal year.

SGL Carbon's principles for combating bribery and corruption are laid down in the SGL Anti-Corruption Program, which is applicable throughout the Group. The rules are set out in a specific policy as well as in the Code of Conduct. The previous Gifts and Hospitality (G&H) Policy was superseded by a new Anti-Corruption Policy in 2022. The policy was fundamentally revised in accordance with changes to the legal framework, and this update also took account of the findings of the previous risk assessment for the four business units. The new Anti-Corruption Policy sets even stricter rules on dealing with material and non-material benefits, including through amendments to the maximum permitted values and a general ban on providing benefits to public officials. At the end of 2022, employees worldwide were informed of the introduction of the new policy via an SGL News item. In addition, Group Compliance offered them four virtual information events in order to notify them of the key changes. In 2023, this policy was distributed to the target group worldwide for the first time via our People Portal. As well as existing employees, this digitalized process includes new hires and requires employees to acknowledge receipt of the policy and confirm that they have read it. By the end of 2023, a total of 2,121 employees had received, read, and acknowledged this policy. The anti-corruption course that forms part of the compliance training program is currently being revised, and the new version will be rolled out as a mandatory training course in 2024.

SGL Carbon has a Group-wide "Business Partner Compliance" (BPC) process to monitor risks and manage all processes that relate to dealing with sales agents. The target groups for the BPC process are currently sales agents and distributors. The process requires that new business partners in the target group undergo a multi-stage review before any contracts are signed. This process is also part of an internal control mechanism within the framework of the internal control system (ICS). In addition to new sales agents, existing sales agents are also regularly reviewed. The nominated business sponsors from the business units are responsible for starting this process. In the past fiscal year, refresher training was provided for responsible employees in the Group's business units. In addition, the contract documents for sales agents and distributors were revised. The existing appendices were updated via SGL's Business Partner Code of Conduct and Anti-Corruption Commitment. The new appendices were once again distributed to the target group via the Group's business units and will in future be included in the new contracts.

In fiscal year 2023, an internal report was submitted regarding an employee's possible acceptance of an undue advantage. At the time of preparation of this report, the investigation of this incident is still ongoing. There were no confirmed cases of corruption or bribery or convictions due to corruption or bribery offenses.

Moreover, the Code of Conduct provides rules for handling of donations to political parties and refers to the Sponsorship and Donations Policy. This policy defines the Group-wide standard that ensures a transparent approach to sponsorship and donations and prohibits actions such as providing financial support to political parties and candidates for political office and other elected positions. The rules apply to all employees of SGL Carbon, including members of the Board of Management.

Corporate governance and business ethics

For SGL Carbon, good corporate governance means not just compliance with legal requirements and applicable policies. It also includes responsible behavior aimed at sustainable value creation. Our commitment to responsible corporate governance is derived from the SGL Carbon Code of Conduct as well as from regulations, external initiatives, and international guidelines that we have pledged to adhere to. We also take these requirements into account in our ESG strategy and Group-wide policies. Examples include the SGL Human Rights Policy, which is based on the UN Guiding Principles on Business and Human Rights, the principles of the UN Global Compact, and the UN Declaration on Human Rights. Our Group-wide occupational health and safety guidelines take inspiration from other guidelines such as the labor standards of the International Labour Organization (ILO).

As a listed company, we are also guided by the German Corporate Governance Code. The Board of Management and the Supervisory Board provide an annual declaration as to whether the German Corporate Governance Code (GCGC) has been and is being complied with. In addition, we explain which recommendations of the code have not been applied or are not being applied. Since 2002, the Board of Management and Supervisory Board of SGL Carbon SE have regularly issued and published declarations of conformity. Each declaration of conformity will be made available to the public on the company's website for a period of five years. The most recent declaration of conformity was issued and published in November 2023.

The Corporate Governance Declaration and further information can be found in the Corporate Governance and Compliance Report (unaudited) in this Annual Report.

Responsibility in the supply chain, export controls, and customs

As a globally active company with a diversified multinational customer structure, SGL Carbon maintains a wide variety of business relationships. During the period of collaboration, SGL Carbon expects all business partners (customers and suppliers) to commit to lawful, ethical, and environmentally sustainable conduct to the same extent as SGL Carbon. To ensure that this is the case, a Supplier Code of Conduct was rolled out for suppliers and their subcontractors in 2015. This Code of Conduct was fundamentally revised in the past fiscal year with regard to the statutory requirements of the LkSG and sustainability requirements. In addition, the target group was expanded. As well as suppliers and subcontractors, it now also includes other business partners such as sales agents, distributors, and consultants. This was also the reason why the code was renamed the Business Partner Code of Conduct. This replaced the previous Supplier Code of Conduct in May 2023. It is available in nine languages as a managed document in the company's policy management system and on the company's website. In addition to rules of conduct to be observed with regard to integrity, supplier-side anti-corruption, and social and environmental standards, it also includes a binding commitment to the principles of the UN Global Compact. The Business Partner Code of Conduct (BP CoC) has been expanded in line with the requirements of the LkSG. In particular, this includes express mention of the human rights and environmental conventions derived from the standards of the International Labour Organization (ILO).

Global Procurement is responsible for implementing and applying the Business Partner Code of Conduct (previously the Supplier Code of Conduct) for suppliers and their subcontractors. It is also incorporated into SGL Carbon's General Purchasing Terms and Conditions. The code for primary risk-relevant suppliers was issued from May 2023. The criteria defined were a minimum sales revenue volume or a minimum number of orders from suppliers classified as based in critical countries according to the CP (Corruption Perception) Index with a score of between 0 and 53. 100% of primary existing suppliers committed themselves to compliance with the code. In addition, new suppliers that Purchasing records in SGL Carbon's system are also requested to sign this code or show that they have equivalent compliance standards. 100% of new suppliers signed the code in 2023. For raw materials, new suppliers are asked about the basics of the Supplier Code of Conduct and their answers influence the final selection of suppliers.

In addition to the awarding of points for delivery performance and quality, since 2018 an assessment of the supplier in terms of legal, ethical, and sustainable behavior has also been carried out in the context of the annual supplier assessment. The result of the evaluation is directly incorporated in the supplier risk management system. The risk assessment is used to determine whether supplier development measures are required and to decide which supplier audits will be carried out. Supplier audits also take into account issues relating to compliance with environmental and social standards.

In 2021, a new process was rolled out for the risk management of strategic suppliers. Standards are evaluated with regard to matters such as compliance, safety, and the environment. The process launched in 2022 of sending a sustainability-related online supplier risk assessment questionnaire to active suppliers which have a minimum sales revenue volume of €2,500 and a material group identified as relevant continued for suppliers newly included in 2023. This is intended to ensure SGL Carbon's compliance with the LkSG, which is valid from January 1. The online supplier risk assessment includes standard sustainability components such as ethics and compliance, as well as human rights and environmental risks in accordance with the LkSG (environmental protection; human rights & labor; supply chain responsibility; health & safety; anti-bribery & corruption; and cybersecurity). The results of the online questionnaire are incorporated in the risk assessment for each supplier, with the aim of eliminating or mitigating any risks identified. Alongside the online risk assessment, in 2023 Global Procurement implemented an abstract risk assessment as a second assessment filter. All countries and industries (based on their NACE code) have been classified here in terms of human rights and environmental risks. The defined goal of producing an overview of suppliers with a critical rating in all three areas (1. Online supplier risk questionnaire; 2. Countries; 3. Sectors) by the end of 2023 was achieved. This will now make it easier to set suitable priorities for the measures to be taken with the resources available.

In addition, in fiscal year 2023 the Group defined responsibility for monitoring compliance with the statutory due diligence duties under the LkSG, in preparation for fulfillment of this law's requirements. For this purpose, the Board of Management of SGL Carbon has created the position of a Human Rights Officer who reports directly to the Board of Management. It has tasked the Head of Group Compliance with this role for SGL Carbon (see also the chapter "Employee concerns/Respect for human rights" in this CSR report).

The established whistleblower system which has existed at SGL Carbon for some years now serves as the complaints procedure which is required under the LkSG. Internal or external reports of potential human rights or environmental risks or violations within SGL Carbon's supply chain can thus be submitted using SGL's whistleblower system. This is accessible internally through SGL's intranet and externally via SGL's website. The same principles apply for the submission and investigation of reports as for other notifications of potential compliance violations. These principles are set out in the guidance for use of SGL's whistleblower system. This guidance is available in all nine local languages at SGL's sites and can be downloaded from the "Whistleblowing system" section of SGL's website (see also the chapter "Compliance management").

SGL Carbon has had its own Conflict Minerals Policy since 2015 and fundamentally revised this policy in 2021. The Group is committed to avoiding the use of conflict minerals in its products and production processes. A review is performed as part of a regular due diligence process. This is implemented via the supplier assessment based on the Integrity Next platform. As well as conflict minerals, this assessment also covers the use of cobalt and mica.

To ensure a continuous transfer of knowledge, at their global meeting in September 2023, Group Compliance once again provided the Global Procurement Team with comprehensive training on “Due Diligence in the Supply Chain.” Here, the focus was on the changes to the statutory framework due to the LkSG, ESG issues, export controls-related issues as well as procedural changes due to the new Business Partner Code of Conduct.

Global Procurement developed an LkSG e-learning program in 2023. This will be rolled out as a mandatory training course for all Procurement employees in 2024 and is available in employees’ personal learning plans via the SGL People Portal. This training is intended to increase Global Procurement employees’ awareness of the LkSG and encourage them to focus here on their relationships with suppliers. SGL Carbon has manufacturing sites in many different countries and supplies products to customers all over the world. It is therefore of considerable importance to avoid risks associated with trading activities and customs regulations. Such risks include restrictions on deliverability, evasion of taxes, customs duties, and other charges, and fines and liability to punishment. SGL Carbon aims to use appropriate compliance processes to ensure that goods and technologies are exchanged and services are used in accordance with the respective internal and external requirements. This principle is defined in the Group-wide Global Trade Policy as well as in SGL Carbon’s procedural instructions on preparing, optimizing, and executing all trading activities, on control mechanisms, and on managing and monitoring risks and responsibilities.

Export controls and customs procedures are also a key component of the compliance risk management system. On this basis, SGL Carbon aims to ensure that international agreements and national laws are complied with in the context of cross-border transactions and intra-Group transfers. In the companies and units, the export managers and export controls/customs officers are responsible for export controls and customs. Since 2009, the existing compliance program for export controls and customs has been working with an IT-based compliance module (SAP Global Trade Services – GTS) that enables the efficient review and processing of business transactions. This module is regularly updated to bring it into line with the latest legal requirements.

The SAP Global Trade Services (GTS) system performs centralized screening and constantly checks all business partners such as banks as well as master data for customers and suppliers in the SAP ERP system. Business partners who match entries in the sanctioned party lists are blocked. All outgoing payments and sales and purchase orders with blocked business partners are also blocked as a result. Transactions with business partners based in embargoed countries will be automatically blocked. Only the centrally organized Global Trade Organization can lift such blocks, provided that it establishes beyond doubt and to the best of its knowledge and belief that the transaction is compatible with applicable legislation. If this cannot be established, SGL Carbon will discontinue the business relationship. All decisions made in this context are documented in the SAP GTS system.

In the area of customs, the GTS system was updated to the new version ATLAS AES 3.0 and the process of centralizing customs clearance in Germany, within the Global Trade Organization, was initiated. The integration of all of the Group’s German sites will be completed in 2024 for export and import customs declarations. SGL Carbon is thus combining the possibilities under the EU Customs Code for modern and flexible customs declarations with effective and efficient handling of customs processes. SGL Carbon is committed to ensuring that employees are informed about all relevant rules in the area of global trade compliance and that export controls/customs officers and selected employees receive training on a regular basis. In December 2023, the annual Global Trade Conference with European export controls and customs delegates took place as an in-person event at our Meitingen site for the first time since the pandemic. The core areas of focus were application of the goods lists and re-exportation guidelines of the USA and China and European legislation on rules of origin. New and existing employees in the defined target group will be assigned dedicated e-learning training on the topic of export controls via our People Portal. This digitalized process include confirmation of successful participation.

Moreover, before going on business trips SGL employees are encouraged to familiarize themselves with local export controls and customs laws and regulations. SGL’s intranet provides travel information for this purpose.

Information security

An important part of our business success is information and its security. This includes research and development data and sensitive customer information. Cybersecurity breaches can disrupt our processes and systems and thus lead to accidents which may adversely affect our workforce, neighbors, the environment, and the climate. Cybersecurity breaches also undermine the confidence of customers, investors, employees, and other stakeholders. Cyber risks can harm the reputation and the value of a company just as much as other ESG factors.

SGL Carbon invests in cybersecurity to protect technology, assets, and critical information, as well as to safeguard our reputation and prevent damage or financial loss due to unauthorized access to our systems and data. In doing so, we rely on a risk-based approach that is in line with the internationally recognized ISO 27001 standard. As a company audited by the German automotive industry association for TISAX (Trusted Information Security Assessment Exchange) compliance, we use clearly defined and monitored processes and clear organizational responsibilities to meet increased cybersecurity requirements and adequately address risks such as ransomware.

Information Security is part of the IT organization and reports to the Head of Information Technology Excellence (ITX), who in turn reports directly to the Chief Financial Officer (CFO). It has the right to intervene in case of safety violations or an immediate need for action, with authority over all SGL Carbon employees.

Organizational measures provide a solid foundation for the technical framework and awareness of appropriate conduct on the part of the organization and its users. A total of 19 issued and regularly monitored security guidelines specify the basic conduct expected of users, define technical requirements, and require verification measures. This also includes exception management for abnormal temporary requirements as well as fundamental principles such as segregation of duties, need-to-know, and least privilege access. This package of measures is rounded out by cybersecurity insurance and a contractually defined and incident-based forensic support service provided by an external partner.

With the latest hardware and software (e.g., including the use of endpoint detection and response software), **technical measures** and adequate information security processes provide a solid basis for ensuring information security and an appropriate level of protection against ransomware attacks, for instance. SGL Carbon relies on both preventive and reactive measures. Both last year and this year, greater focus has fallen on topics such as identity and access management and the security of operational IT. These issues are also regularly monitored by means of external security checks.

Preventive measures are designed to reduce the risk of security breaches. We maintain a strong barrier here by rolling out tools such as multi-factor authentication, detection strategies, and emergency response plans. In addition, through mandatory and optional training and regular attack simulations (such as phishing or payment fraud) we provide our employees with the tools necessary to identify significant attacks and implement a rapid reporting and response system. In the fight against cybercrime, industrial espionage, and attempted fraud, employee awareness and risk transparency are the key preventive measures for SGL Carbon.

Reactive measures, in turn, are designed to ensure that SGL Carbon’s detection rate and response capability remain at a high level and that resilience remains consistent during a cyberattack. For this purpose, we rely on comprehensive security and vulnerability scanners and a thorough event and incident management system at the central and regionally utilized endpoints of our IT infrastructure. In addition to automated detection mechanisms, our 24/7 information security service enables us to respond promptly and systematically to attack attempts.

Independent assurance practitioner's report[1]

To SGL Carbon SE, Wiesbaden

We have performed a limited assurance engagement on the separate non- financial group report further "separate non-financial group report), of SGL Carbon SE, (further "Company" or "SGL Carbon") for the period from January 1 to December 31, 2023.

Responsibilities of Management

The legal representatives of the SGL Carbon SE are responsible for the preparation of the separate non-financial group report for the period from January 1 to December 31, 2023 in accordance with §§ 315c in conjunction with 289c to 289e HGB and with Article 8 of REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (further „EU Taxonomy Regulation ") and the supplementing Delegated Acts as well as the interpretation of the wording and terms contained in the EU Taxonomy Regulation and in the supplementing Delegated Acts by the Company as disclosed in Section "EU taxonomy" of the separate non-financial group report.

This responsibility of the legal representatives includes the selection and application of appropriate methods to prepare the non-financial reporting and the use of assumptions and estimates for individual disclosures which are reasonable under the given circumstances. Furthermore, the legal representatives are responsible for the internal controls they deem necessary for the preparation of the separate non-financial group report that is free from material misstatements, whether due to fraud (manipulation of the combined separate non-financial report) or error.

[1] Our engagement applied to the German version of the separate non-financial group report 2023. This text is a translation of the Independent Assurance Report issued in German, whereas the German text is authoritative.

The EU Taxonomy Regulation and the supplementing Delegated Acts contain wording and terms that are still subject to considerable interpretation uncertainties and for which clarifications have not yet been published in every case. Therefore, the legal representatives have disclosed their interpretation of the EU Taxonomy Regulation and the Delegated Acts adopted thereunder in Section "EU taxonomy" of the separate non-financial group report.

They are responsible for the defensibility of this interpretation. Due to the immanent risk that indeterminate legal terms may be interpreted differently, the legal conformity of the interpretation is subject to uncertainties.

Independence and Quality Assurance on the Part of the Auditing Firm

In performing this engagement, we applied the legal provisions and professional pronouncements regarding independence and quality assurance, in particular the Professional Code for German Public Auditors and Chartered Accountants (in Germany) and the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QMS 1 (09.2022)).

Responsibility of the Assurance Practitioner

It is our responsibility to express a conclusion on the separate non-financial group report based on our work performed within a limited assurance engagement.

We conducted our work in the form of a limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information", published by IAASB. Accordingly, we have to plan and perform the assurance engagement to obtain limited assurance about whether any matters have come to our attention that cause us to believe that the separate non-financial group report of the Company for the period from January 1 to December 31, 2023 has not been prepared, in all material respects, in accordance with §§ 315c in conjunction with 289c to 289e HGB and with the EU Taxonomy Regulation and the supplementing Delegated Acts as well as the interpretation of the wording and terms contained in the EU Taxonomy Regulation and in the supplementing Delegated Acts by the legal representatives as disclosed in Section “EU taxonomy” of the separate non-financial group report.

In a limited assurance engagement, the procedures performed are less extensive than in a reasonable assurance engagement, and accordingly, a substantially lower level of assurance is obtained. The selection of the assurance procedures is subject to the professional judgment of the assurance practitioner.

Within the scope of our engagement we performed, amongst others, the following procedures:

- Inquiries of group-level personnel who are responsible for the materiality analysis in order to understand the processes for determining material topics and respective reporting boundaries for SGL Carbon;

- A risk analysis, including media research, to identify relevant information on SGL Carbon's sustainability performance in the reporting period;

- Evaluation of the design and the implementation of systems and processes for the collection, processing and monitoring of disclosures on environmental, employee and social matters, respect for human rights, and combating corruption and bribery, including data consolidation;

- Inquiries of group-level personnel who are responsible for determining disclosures on concepts, due diligence processes, results and risks, performing internal control functions and consolidating disclosures;

- Inspection of selected internal and external documents;

- Analytical procedures for the evaluation of data and of the trends of quantitative disclosures as reported at group level by all sites;

- Assessment of local data collection, validation and reporting processes and the reliability of reported data via a sampling survey at one selected site via video conference;

- Inquiries of responsible group-level personnel to gain an understanding of the procedure for identifying relevant economic activities according to the EU Taxonomy;

- Assessment of the design and implementation of systems, processes and measures for the determination, processing and monitoring of information on sales, capital expenditures and operating expenses for the taxonomy-eligible/-compliant economic activities;

- Assessment of the overall presentation of the disclosures.

The legal representatives have to interpret vague legal concepts in order to be able to compile the relevant disclosures according to Article 8 of the EU Taxonomy Regulation. Due to the innate risk of diverging interpretations of vague legal concepts, the legal conformity of these interpretations and, correspondingly, our assurance thereof are subject to uncertainties.

Assurance Opinion

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the separate non-financial group report of SGL Carbon SE for the period from January 1 to December 31, 2023 has not been prepared, in all material respects, in accordance with §§ 315c in conjunction with 289c to 289e HGB and the EU Taxonomy Regulation and the supplementing Delegated Acts as well as the interpretation disclosed by the legal representatives in Section “EU taxonomy” of the separate non-financial group report.

Restriction of Use/General Engagement Terms

This assurance report is solely addressed to SGL Carbon SE, Wiesbaden and intended exclusively for them.

Our assignment for SGL Carbon SE, Wiesbaden, and professional liability is governed by the General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften (Allgemeine Auftragsbedingungen für Wirtschaftsprüfer und Wirtschaftsprüfungs-gesellschaften) in the version dated January 1, 2017 (https://www.kpmg.de/bescheinigungen/lib/aab_english.pdf). By reading and using the information contained in this assurance report, each recipient confirms having taken note of provisions of the General Engagement Terms (including the limitation of our liability for negligence to EUR 4 million as stipulated in No. 9) and accepts the validity of the attached General Engagement Terms with respect to us.

Frankfurt am Main, March 21, 2024

KPMG AG

Wirtschaftsprüfungsgesellschaft [Original German version signed by:]

Dr. Gnändiger Wirtschaftsprüfer [German Public Auditor]	Brandt Wirtschaftsprüfer [German Public Auditor]

SGL Carbon in the Capital Markets

SGL Carbon's share price performance in 2023 reflects the weak demand in the carbon fiber business.

The stock markets were characterized by a high level of uncertainty at the beginning of 2023. On the one hand, geopolitical tensions such as the ongoing Russian war of aggression in Ukraine as well as factors such as increasing fears of recession fueled by further interest rate hikes and persistently high inflation rates contributed to the uncertainty. In January 2023, inflation was at 8.7% in Germany (German Federal Statistical Office) and 6.4% in the US (US Bureau of Economic Analysis), a far cry from the central banks' inflation target of 2%.

After a good start in January, driven primarily by hopes of imminent interest rate cuts, the stock markets in the US and Europe returned in the following months. This was mainly due to further interest rate hikes by the world's leading central banks, the Federal Reserve and the ECB. The US Fed began raising interest rates aggressively in 2022 and continued to do so in four steps over the course of 2023, raising them a total of 100 basis points to between 5.25% and 5.50%. The European Central Bank (ECB) also continued the tightening cycle that began in 2022 and raised interest rates 200 basis points to 4.50% in six steps in 2023. The capital market's hopes of interest rate cuts in the near future were thus dashed. The central banks' policy of raising interest rates to bring high inflation under control was successful. At the end of December 2023, the inflation rate was significantly lower at 3.4% in the US and 3.7% in the eurozone, though the central banks' respective target corridor was not reached.

Overall, the German stock index DAX was very volatile in 2023. The lowest point was recorded already on January 2 at 13,923 points. After rising in January, the DAX corrected downwards in the first half of March, only to rise again significantly thereafter. In the period from August to the end of October, the DAX lost most of the gains it had made since January 2023. In November, the DAX set off on a final sprint, driven primarily by hopes of an end to the cycle of interest rate hikes, reaching a new all-time high of 17,003 points in the course of the day on December 14, 2023.

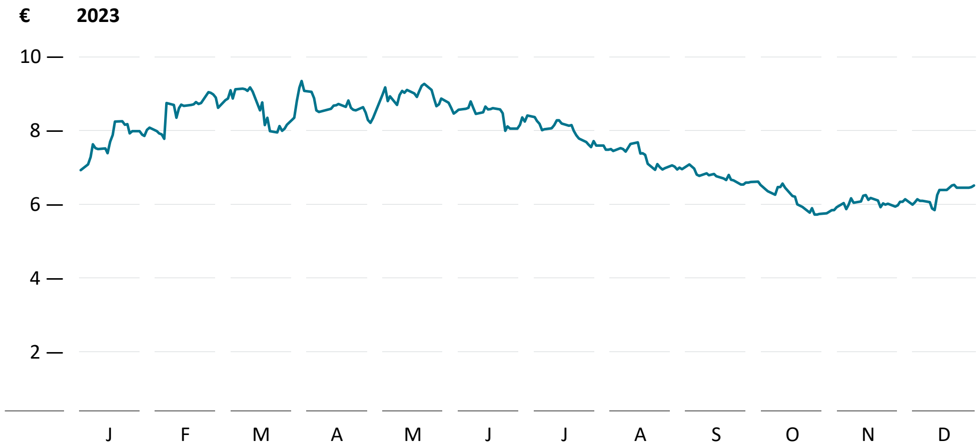
Key figures for SGL Carbon SE shares	2023	2022
Number of shares at year-end	122,341,478	122,341,478
High (€)	9.36	8.07
Low (€)	5.72	4.59
Closing price at year-end (€)	6.51	6.93
Market capitalization at year-end (€m)	796.4	847.8
Average daily turnover in Xetra trading (number of shares)	131,086	223,916
Free float at year end (%)	approx. 46	approx. 46
Dividend per share (€)	-	-

Overall, the DAX closed the 2023 stock market up 20.3% on the closing price of the previous year. The SDAX, to which SGL Carbon's shares belong, showed a slightly weaker increase of 17.1% over the year. The 6.1% decline in the SGL Carbon share price in 2023 reflected the withdrawal of many international investors from the small and mid-cap segment on the one hand and the uncertainty about the further development of SGL's Carbon Fibers business unit on the other.

SGL Carbon share price

The SGL Carbon share closed out 2022 at €6.93. In January 2023, the share price rose continuously, driven by a very positive stock market environment overall, resulting in a 14.4% increase in the share price in January. Announcements such as the rating upgrade by Moody's on February 6, 2023 or the announcement on February 28, 2023 regarding the early repayment of a convertible bond certainly supported the positive trend in February (+11.9%). The publication of the 2022 annual results on March 22, 2023, including the announcement of the outlook for 2023, resulted in a slightly negative share price reaction. This effect was more than offset by the news about the Board of Management's share purchases on March 24, 2023, and the press release on the multi-year supply order for the US semiconductor company Wolfspeed on March 28, 2023. The share price also reacted positively to the press release on March 29, 2023, regarding the market launch of a new carbon fiber for use in pressure vessels for applications such as hydrogen storage. We published our report for the first quarter of 2023 on May 5, 2023. On May 8, 2023, we informed the capital market about the Board of Management's share purchase. The share price responded with an increase of around 10% in May. On June 21, 2023, we informed the capital market in an ad hoc announcement about the issue of a new convertible bond for around €120 million, to which the share price responded by falling nearly 6%. The share purchases made by the Board of Management the following day were received somewhat positively and led to a price reversal in the days that followed as well. Overall, the share price rose just over 20% in the first half of the year.

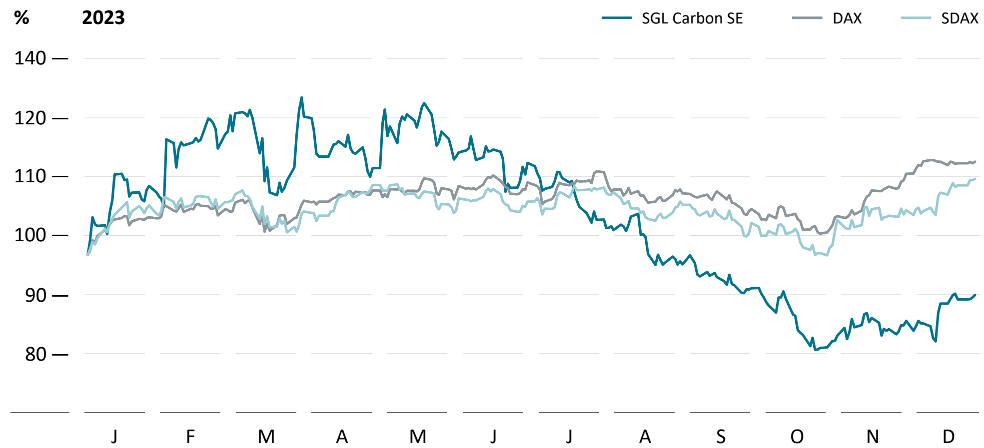
Performance of the share



The capital market welcomed the early redemption of the 4.625% corporate bond on July 28, 2023, which was announced on July 10, 2023, as a further component of SGL's refinancing plan, with slight price premiums. Demand from the wind energy market was weaker for longer than previously expected, which prompted us to issue an ad hoc announcement on July 24, 2023, informing the public of an impairment of fixed assets of €40 million to €50 million in the CF business unit. This led to a slightly negative share price reaction. Earnings for the first six months of the year published on August 3, 2023, were in line with market expectations and led to a negligible share price reaction. The capital market reacted slightly negatively to the expansion of production capacity at our joint venture BSCCB, which was announced on September 12, 2023. The results for the first nine months published on November 2, 2023, and the share purchases made by the Board of Management on the following days led to an overall increase in the share price of around 5%. At the end of 2023, SGL shares closed at €6.51, representing an annualized decline of 6.1%. Overall, the strong price gain of 21.3% in the first half of the year was more than offset by the sharp decrease of 22.6% in the second half. Reasons for the SGL share's poorer relative performance are the general weakness of the chemical sector to which the SGL Carbon share belongs, the departure of investors from small and mid-cap shares as well as company-specific reasons relating to weak demand in the Carbon Fibers business unit.

The highest price of the SGL share in 2023 was €9.36 and was reached on March 30, 2023. The lowest price was recorded on October 26, 2023 at €5.72.

Relative performance of the share

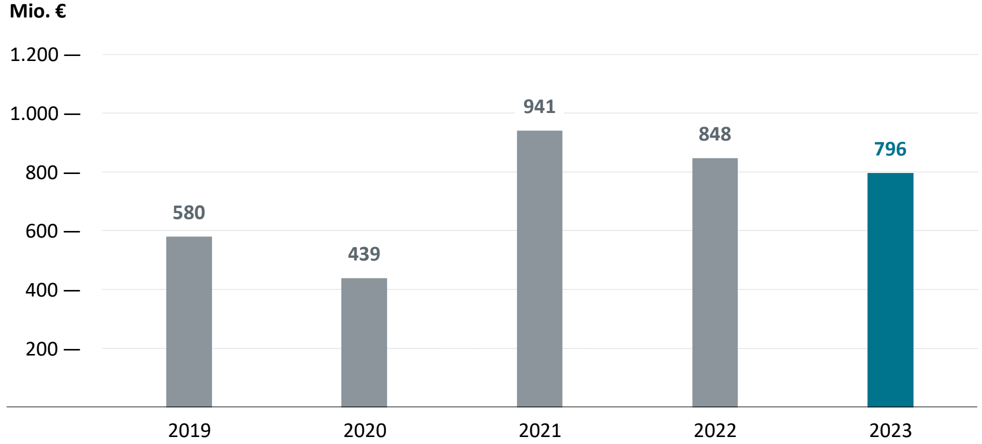


Comparison with the SDAX: Despite high volatility during the year, the SGL Carbon share price underperformed the overarching SDAX index in which it is listed by declining 6.1%. The SDAX performed better, increasing by 17.1% during the year. In our view, the relative underperformance of SGL Carbon shares reflects the assessment of the capital market, which gave more weight to weak demand in the wind energy market (CF business unit) than the still excellent operating performance in the three other business units.

Slight decline in market capitalization

The market capitalization of SGL Carbon fell sightly during 2023 in line with the development of the share price. After €847.8 million in the previous year, it amounted to €796.4 million at the end of the reporting year. According to the index ranking list calculation by Deutsche Börse AG, SGL Carbon SE ranked 151st with a free float market capitalization of €348.6 million as of year-end 2023, after coming in 149th in the previous year. The number of shares outstanding has remained constant over the past year at 122,341,478.

Market capitalization



Stable shareholder base

SKion GmbH, Dr. h.c. Susanne Klatten's investment company, remains the company's largest shareholder with a shareholding of around 28.5%. In addition, based on the respective notifications of voting rights or other notifications, BMW AG and Volkswagen AG hold the following shareholdings subject to reporting obligations:

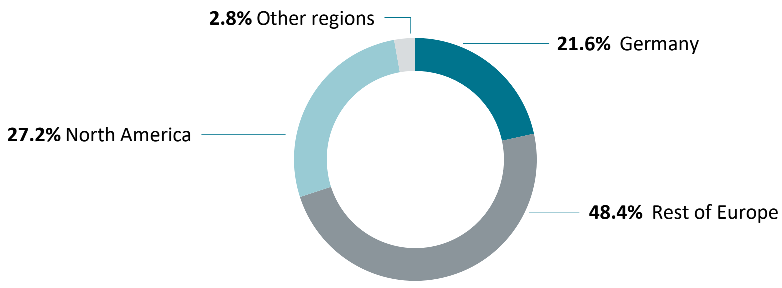
BMW AG	October 15, 2014 [1)]	18.44 %
Volkswagen AG	February 6, 2018 [2)]	7.41 %

[1)] Date of the most voting rights notification
[2)] Other notification

Overall, these anchor investors hold approximately 54% of the share capital. The relatively low free float of 46%, combined with rather low trading volumes, often leads to high price swings in both directions. In the course of 2023, the US investment banks Goldman Sachs and JPMorgan Chase & Co. issued several communications reporting voting rights of around 5% through financial instruments and shares that are likely to be attributable to a financial interest.

As per the April 2023 shareholder survey, institutional investors were geographically distributed as follows: 21.6% of the shares are held by German investors, 48.4% in the rest of Europe and 27.2% in North America. Other regions such as Asia, Middle East and South America contribute 2.8% to the shareholder base.

Geographic distribution of institutional shareholders



The following table provides an overview of the shares held by the Board of Management and the Supervisory Board (reporting date: December 31, 2023).

Shares held by Board of Management and Supervisory Board	2023
Executive Board	
Dr. Torsten Derr	233,030
Thomas Dippold	116,750
Supervisory Board	
Members of the Supervisory Board in total	2,346
Total	352,126

Dividend development

Despite the positive development of SGL Carbon's sales revenue and earnings, the company will not be able to pay a dividend in the 2023 fiscal year. With further growth, our company will operate more profitably on a sustainable basis. Only then will it be possible to distribute a dividend.

2023 Annual General Meeting

The Annual General Meeting of SGL Carbon SE was held on May 9, 2023, as a virtual Annual General Meeting without the physical presence of shareholders on the basis of the revised legal regulations.

The Annual General Meeting was broadcast using a password-protected AGM internet service, which approximately 450 shareholders used to dial in to the AGM in 2023.

Shareholders connected electronically to the Annual General Meeting had the right to exercise their shareholder rights in full at the meeting via the AGM internet service. In particular, the video communication enabled shareholders to exercise their right to speak and ask questions. The AGM internet service also allowed shareholders to exercise their voting rights by mail, have their voting rights exercised in accordance with the instructions they had given through the voting rights representative appointed by the company, submit statements in response to agenda items and object to resolutions of the Annual General Meeting.

Of the company's share capital of €313,194,183.68, divided into 122,341,478 shares, a total of 79,082,177 shares - including mailed-in votes - were represented at the 2023 Annual General Meeting, which corresponds to 64.64% of the registered share capital. All items on the agenda were approved with an overwhelming majority.

In addition, the speech given by the chairman of the Board of Management, Dr. Torsten Derr, was broadcast publicly on the SGL website. The speech and all AGM voting results are available to shareholders and interested parties on the SGL Carbon website at: (www.sglcarbon.com/en/investor-relations/annual-general-meeting/).

The next Annual General Meeting of SGL Carbon SE will take place on May 23, 2024.

In-depth capital market communication

At the end of the reporting period, SGL Carbon shares were covered, analyzed and rated as follows by seven German and international financial analysts (previous year: seven). Three analysts rated the stock Buy or Add, while four analysts rated the stock Hold/Neutral. The rating Underperform/Reduce was not assigned by any analyst (as of December 31, 2023).

A summary of the analysts who regularly cover SGL Carbon is available on SGL Carbon's Investor Relations website under the “Share” menu item.

Analyst coverage (as of December 31, 2023)
Alphavalue
Berenberg
Deutsche Bank
HSBC
Jefferies
Kepler Cheuvreux
Stifel

SGL Carbon provides all capital market participants with transparent, timely and comprehensive information on the Company's business situation and future prospects. Many discussions with investors were held in person again in 2023. In total, around 330 individual discussions were held with analysts and investors in Germany and abroad, significantly exceeding the previous year's level of around 200 meetings. This shows that interest in SGL shares increased significantly following the end of the transformation and the focus on expanding the growth market for specialty graphite components for the semiconductor industry. The discussions with investors focused primarily on the following topics: growth opportunities for SGL Carbon in the semiconductor business, particularly in silicon carbide-based semiconductors, and the effects of the demand slump in the wind energy industry on our carbon fiber activities. The investors were also informed about the status of the company's net debt and financing structure. One important topic was the capital market transaction carried out in June 2023 relating to the issue of a new convertible bond with a volume of €118.7 million. Discussions also revolved around the early redemption of the secured corporate bond (maturing in September 2024) on July 28, 2023, which was announced on July 10, 2023. The company's sustainability strategy increasingly came to the fore in discussions with investors. Ambitions and measures to improve ESG performance were of particular interest.

As usual, capital market conferences and roadshows were central instruments for intensive exchange with institutional investors. In total, SGL Carbon took part in 13 investor conferences and three roadshows in 2023. Quarterly reports and the conference calls held on the same day are further tools for providing capital market participants with comprehensive information in a timely manner. The conferences are broadcast live on SGL Carbon's Investor Relations website and are also available as a recording. In addition, we hosted a virtual conference on SiC-based semiconductors in May 2023 in response to the tremendous interest shown by investors and analysts. The Board of Management and semiconductor experts from the GS business unit informed around 50 participants about our products for this market, their growth opportunities and the technology in general.

The Investor Relations website offers a wide range of information, in particular for private investors and interested third parties. In addition to the financial reports, further documents such as presentations as well as press and ad hoc announcements are made available there. All reports on share transactions by the Board of Management and Supervisory Board as well as voting rights reports are also available online. Interested parties also have the option to be included on the mailing list for financial reports or press releases.

We look forward to hearing from you!

Key data of SGL Carbon SE shares

Trading venues	Xetra, Berlin, Dusseldorf, Frankfurt, Hamburg, Hannover, Munich, Stuttgart
German securities identification number (WKN)	723 530
International Securities Identification Number (ISIN)	DE 000 723 5301
Stock index	SDAX
Market segment	Prime Standard

Successful completion of refinancing measures leads to reduced overall debt and improved debt maturity structure

Following the successful completion of refinancing measures in the summer of 2023, SGL Carbon has lower net debt at the end of 2023 than in the previous year as well as an improved debt maturity structure. The following measures were successfully implemented in 2023:

- The outstanding amount of €31.6 million of the convertible bond maturing on September 20, 2023, was redeemed early on March 31, 2023.
- The secured corporate bond (outstanding volume of €240 million) maturing on September 30, 2024, was repaid early on July 28, 2023.
- A new convertible bond for €118.7 million with a coupon of 5.75% was issued on June 21, 2023. The instrument matures on June 28, 2028.
- Drawing of the term loan facility of €75 million as part of the syndicated credit lines. Maturity in June 2026.

Overall, these measures reduced net financial debt by €55.0 million to €115.8 million as of December 31, 2023. The leverage ratio also improved to 0.7 as of December 31, 2023, compared to the end of the previous year (December 31, 2022: 1.0). SGL Carbon has a significantly improved maturity profile with maturities in 2027 and 2028 for the two outstanding convertible bonds. Furthermore, there is an undrawn syndicated credit line of €100.0 million, which matures in Month 2026 as of the balance sheet date.

An overview of SGL Carbon SE bonds

The prices of SGL Carbon's financing instruments were significantly less volatile last year than in the years before. In addition to the very good earnings situation in a challenging economic environment, this was also due to the significant improvement in the balance sheet structure with reduced net debt and an increase in the equity ratio. At the end of 2023, the two financial instruments, the convertible bond 2027 (nominal volume €101.9 million, interest rate 5.75% p.a., maturing on September 21, 2027) and the convertible bond 2028 (nominal volume €118.7 million, interest rate 5.75% p.a., maturing on September 28, 2028), were traded close to their nominal values.

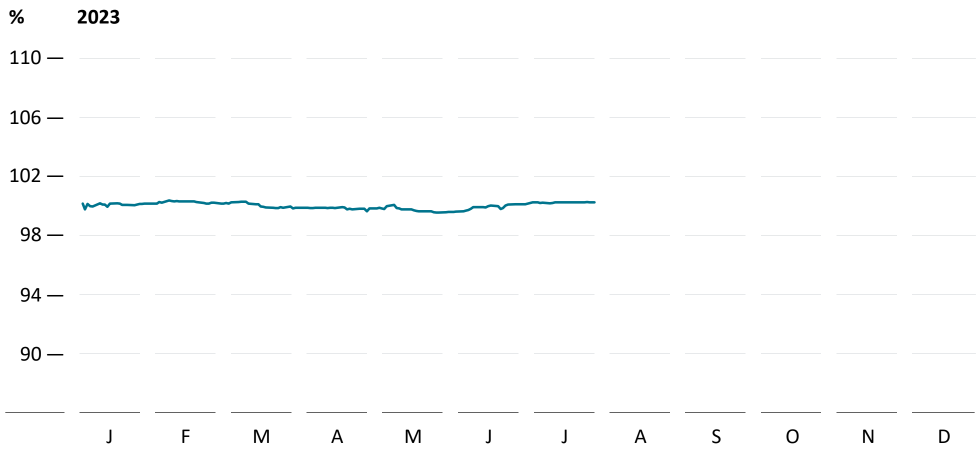
Corporate bond

WKN	ISIN	Coupon	Maturity
A1X3PA	XS1945271952	4.625%	September 30, 2024; redeemed early on July 28, 2023

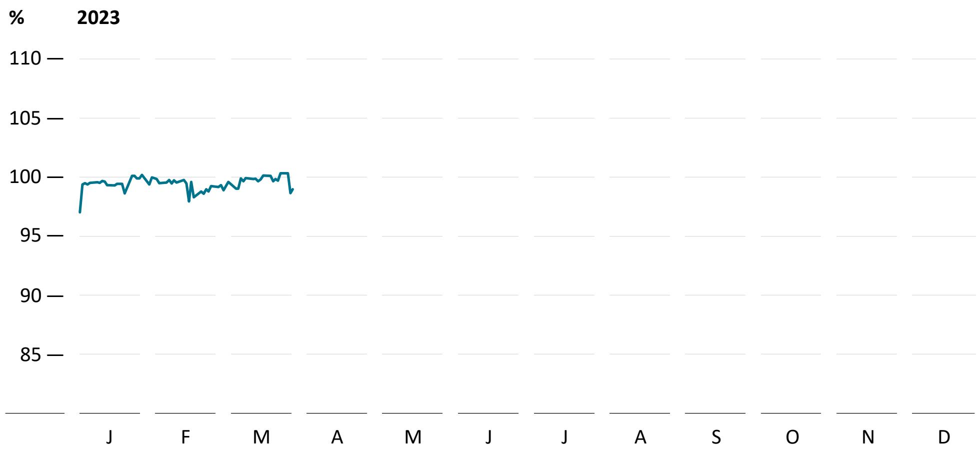
Convertible bonds

WKN	ISIN	Coupon	Maturity
A2G8VX	DE000A2G8VX7	3.00%	September 20, 2023; redeemed early on March 31, 2023
A30VKB	DE000A30VKB5	5.75%	September 21, 2027
A351SD	DE000A351SD3	5.75%	June 28, 2028

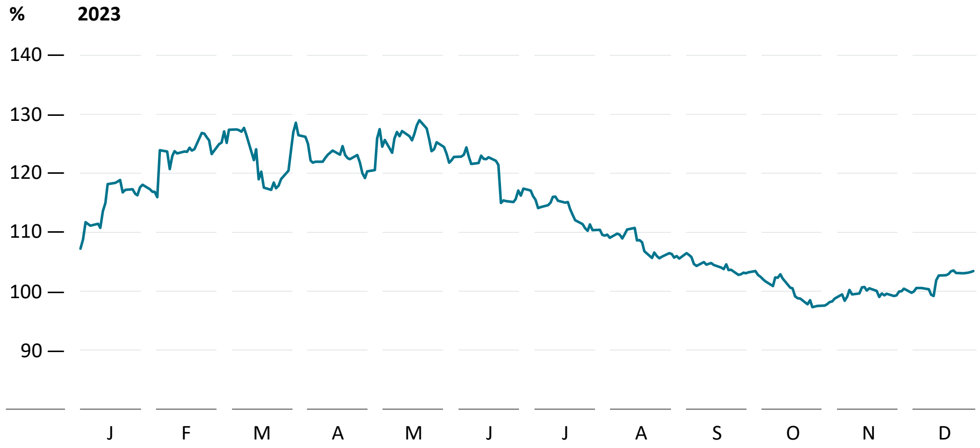
Performance of the corporate bond (matures on September 30, 2024) – redeemed early on July 28, 2023



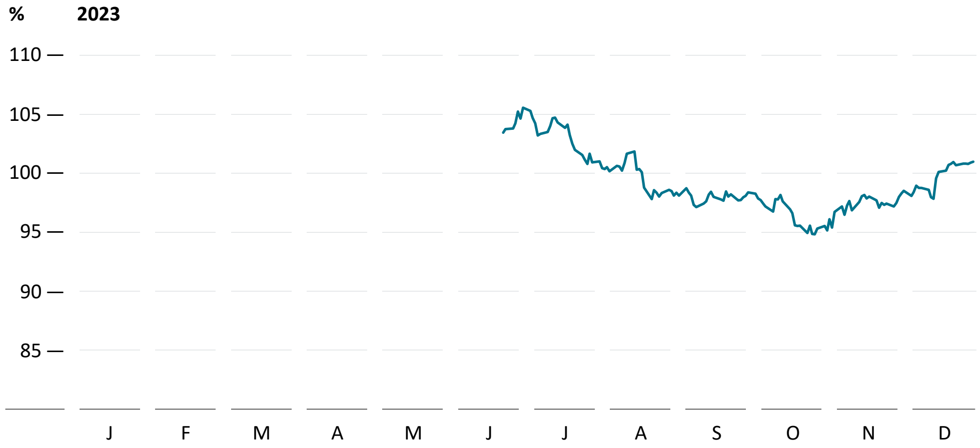
Performance of the convertible bond (matures on September 20, 2023) – redeemed early on March 31, 2023



Performance of the convertible bond (matures on September 21, 2027)



Performance of the convertible bond (matures on June 28, 2028)



Group Management Report

The GS, PT and CS business units achieved record sales and earnings. This almost compensated for the weak performance of CF.

Slight decline in sales revenue by 4.1% to €1,089.1 million (previous year: €1,135.9 million), in particular due to weak demand in the BU CF.

Adjusted EBITDA of €168.4 million (previous year: €172.8 million) also slightly decreased due to the slight decline in sales revenue.

Free cash flow of €95.6 million clearly positive due to operating performance (previous year: €67.8 million). Net debt significantly reduced to €115.8 million (previous year: €170.8 million). Refinancing of the corporate bond by issuing a new convertible bond 2023/2028 and taking out a term loan facility. Equity ratio further increased by 2.6 %-points to 41.1% (previous year: 38.5%).

In this Group Management Report, we provide detailed information about the business development and its framework conditions in the reporting year and explain in detail the net assets, financial position and results of operations. We also provide an outlook on the probable development along with its main opportunities and risks.

Group Fundamentals

Group business model

Business activity and company structure

SGL Carbon is a technology-based company and a global leader in its focus markets in the development and manufacture of materials and products made from special graphite, carbon fibers and composites. With its sophisticated and in some cases customized solutions, SGL Carbon serves many industries that are shaping future trends: mobility (especially electromobility), semiconductor technology, LED, solar and wind energy, as well as the battery industry and manufacturers of fuel cells. We also develop customer-oriented solutions for the chemical industry and numerous other industrial applications. We strive to grow with products and technologies that benefit society and reduce the impact on the environment.

SGL Carbon meets regional and industry-specific customer requirements with around 4,808 employees at 29 sites throughout Europe, North America and Asia.

SGL Carbon SE, based in Wiesbaden (Germany), is listed on the Frankfurt Stock Exchange. The shares are listed in the Prime Standard market segment of the German Stock Exchange. Together with its subsidiaries, SGL Carbon SE forms the management holding company SGL Carbon (a detailed overview of the shareholdings of SGL Carbon SE can be found in the Notes to the Consolidated Financial Statements under Note 31).

The operative business of SGL Carbon is managed by four business units with their own responsibility for financial results: Graphite Solutions (GS), Process Technology (PT), Carbon Fibers (CF) and Composite Solutions (CS). Together with the central functions that are bundled in the Corporate reporting segment, the four operating business units make up the company's five reporting segments.

The Board of Management defines the Group's strategy and decides on financing and resource allocation. The globally active business units are responsible for the development, production and marketing of their products and solutions, while all service and administration activities are bundled in the central functions.

Our business units

Graphite Solutions (GS) business unit

Graphite Solutions (GS) generates the highest sales and earnings among all of SGL Carbon's business units. GS develops, produces and markets a wide range of graphite-based solutions and products. Tailor-made graphite components and materials are manufactured, cleaned, impregnated and sometimes further refined with special coatings based on the needs of our customers. Key customers in the GS business unit come from the semiconductor, LED and solar industries, the battery and fuel cell industry, the automotive and transport segment, and various other industrial applications.

The focus here is on products with a high added value. Components made of specialty graphite, some with highly specialized coatings, play a critical role along the entire value chain of silicon and silicon carbide-based semiconductors, for example. The growth of single crystals requires heating elements made of graphite as well as hard and soft felts for heat insulation, while wafer carriers with silicon carbide coating enable the further processing of semiconductors. Silicon carbide semiconductor components in particular are increasingly in demand in growth fields such as electromobility and renewable energy infrastructure. Gas diffusion layers are essential parts of fuel cells – another key technology for modern energy infrastructure. Durable graphite contact materials are used in the latest wind turbines. GS offers solutions for the automotive industry and other processing industries with graphite-based bearing and pump components as well as sealing rings. Expanded graphites based on natural graphite are also used in a large number of industries. Furthermore, GS is one of the few European suppliers of graphite anode material for lithium-ion batteries, which are required for electric vehicles, among other things.

The main raw materials in the GS business unit are petroleum cokes and pitches. SGL Carbon obtains these raw materials primarily from suppliers with which the company has long-standing business relationships based on annual framework agreements. The energy requirements (electricity, natural gas) of the manufacturing processes are covered by long-term contracts with national and local energy supply companies.

sgl carbon

Graphite Solutions	Process Technology	Carbon Fibers	Composite Solutions
▪ Synthetic fine grain graphite blocks, expanded natural graphite ▪ Graphite specialities ▪ Graphite anode material ▪ Materials for fuel cells	▪ Process solutions ▪ Equipment for corrosive applications ▪ Components & assemblies ▪ Spare parts & services	▪ Precursor & acrylic fibers ▪ Carbon fibers ▪ Non-crimp & woven fabrics ▪ Pre-impregnated materials	▪ Composite parts (large & small series) ▪ Wet friction ▪ Insulation materials

Corporate Functions
Central functions & services

Process Technology (PT) business unit
The Process Technology (PT) business unit focuses on the construction and repair of large systems for industrial applications. In addition to individual components and equipment, PT also offers complete systems and engineering know-how: from hydrochloric acid synthesis to concentration and dilution systems for a wide variety of acids, to absorption and desorption systems. The main focus is on the design and manufacture of graphite heat exchangers, syntheses, columns and column internals as well as pumps and systems that are exposed to corrosive media. The “Spare parts and services” product segment is becoming increasingly important. PT provides support with commissioning, operation and maintenance, system expansions and even taking back used equipment and system parts to ensure long-term customer loyalty. The chemical industry is one of the business unit’s most important customer groups. The systems and expertise of PT are also used in other industries with corrosive and caustic processes.

Carbon Fibers (CF) business unit
The Carbon Fibers (CF) business unit focuses not only on the production of textile fibers but also on the production of SGL’s own carbon fibers, forming the basis for all processing stages of composite applications. Carbon fibers are industrially manufactured fibers that are refined in such a way that they consist almost exclusively of carbon. They are microscopic and about eight times thinner than human hair. In order to make them usable for various applications, 1,000 to 60,000 filaments are combined into a kind of thread.

Due to their unique properties, such as high tensile strength and high rigidity combined with low weight, they enable a wide range of innovative lightweight solutions for various industries and are increasingly being used as a substitute for classic materials such as fiberglass.

The automotive industry was CF’s largest sales market until mid-2022. Following the scheduled expiration of a high-margin contract with BMW, the wind industry has since become an important customer for utilizing production capacity for SGL’s own carbon fibers. Carbon fibers are mainly required for offshore wind turbines with rotor blades that are 100 meters or more in length to ensure greater stability and resistance to breaking. CF has spent recent years developing other product solutions, such as for pressure tanks or the construction industry.

The Carbon Fibers business unit covers the entire value chain, starting with the polymerization of the main raw material through the production of carbon fibers to the manufacture of fabrics and pre-impregnated materials. The main raw material is acrylonitrile (ACN), which is initially processed into acrylic fibers, a polyacrylonitrile (PAN) precursor, and into carbon fibers in further production processes.

The joint venture Brembo SGL Carbon Ceramic Brakes, which is recognized using the equity method, is allocated to the CF business unit. The joint venture with the Italian Brembo S.p.A. develops and produces carbon-ceramic brake discs, especially in the market segment for luxury vehicles and sports cars. In addition to its expertise in carbon fiber processing, CF also supplies the joint venture with carbon fiber products that form the basis of the carbon-ceramic brake.

Industrial applications of composites are diverse and are constantly evolving. For this reason, SGL experts, together with the sister business unit Composite Solutions, are continually developing processes and procedures to support customers in using fibers and materials for composites.

Composite Solutions (CS) business unit

The Composite Solutions (CS) business unit bundles composite solutions based on carbon fibers and fiberglass. For high-tech applications that require high strength and rigidity at a low weight, these solutions are practically invaluable. They also offer excellent thermal protection without sacrificing strength.

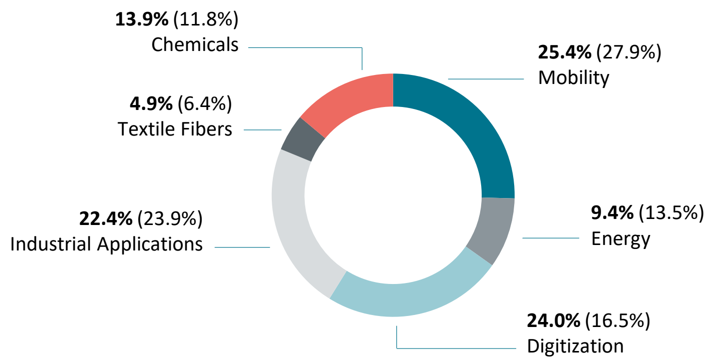
The focus of the CS business unit is the production of customer-specific components and tailor-made applications made of composite materials based on fiberglass and carbon fibers, especially for the automotive industry.

Based on many years of experience, knowledge and competence from the areas of design and engineering up to fully automated series production, small to medium construction volumes can be custom-made. These are used in medical technology as well as large-volume automotive applications. The Composite Solutions business unit focuses in particular on battery housing applications and GRP leaf springs as well as on various types of carbon friction materials.

Major sales markets

The following graphic shows the main sales markets of SGL Carbon:

Sales by market segments 2023 (2022)



The Mobility market segment (Automotive & Transportation, Aerospace) remains the largest market segment in the Group, accounting for 25.4% of sales (previous year: 27.9%). The decline in sales is mainly due to the expiry of a contract with an automotive customer at the end of June 2022. The production capacities of the Carbon Fibers business unit required until then for this contract were almost utilized by orders from wind energy.

In turn, the significant increase in sales with materials and products for the semiconductor industry, the share of sales to customers assigned to the Digitization market segment increased from 16.5% to 24.0% in the reporting period. By contrast, the share of sales in the "Energy" segment decreased from 13.5% in 2022 to 9.4% in the current fiscal year, primarily due to the slump in demand for wind energy but also against the backdrop of a change in capacity allocation in connection with the increased demand for products for the semiconductor industry.

With a share of sales of 22.4% (previous year: 23.9%), the market segment "Industrial Applications," which covers a wide range of applications in various industries, is the third largest area.

The contribution to sales from customers in the chemical industry increased to 13.9% compared to the previous year (11.8%), which is due in particular to the increase in sales in the Process Technology (PT) division. Textile Fibers remains the smallest market segment at 4.9% (previous year: 6.4%).

The development of the market segments reflects the increasing importance of sales to customers in the semiconductor industry. The sales shares by specific market segment of the four business units are presented in the segment reporting section.

The development of the market segments reflects the increasing importance of sales to customers in the semiconductor industry. The sales shares by specific market segment of the four business units are presented in the segment reporting section.

Objectives and strategies

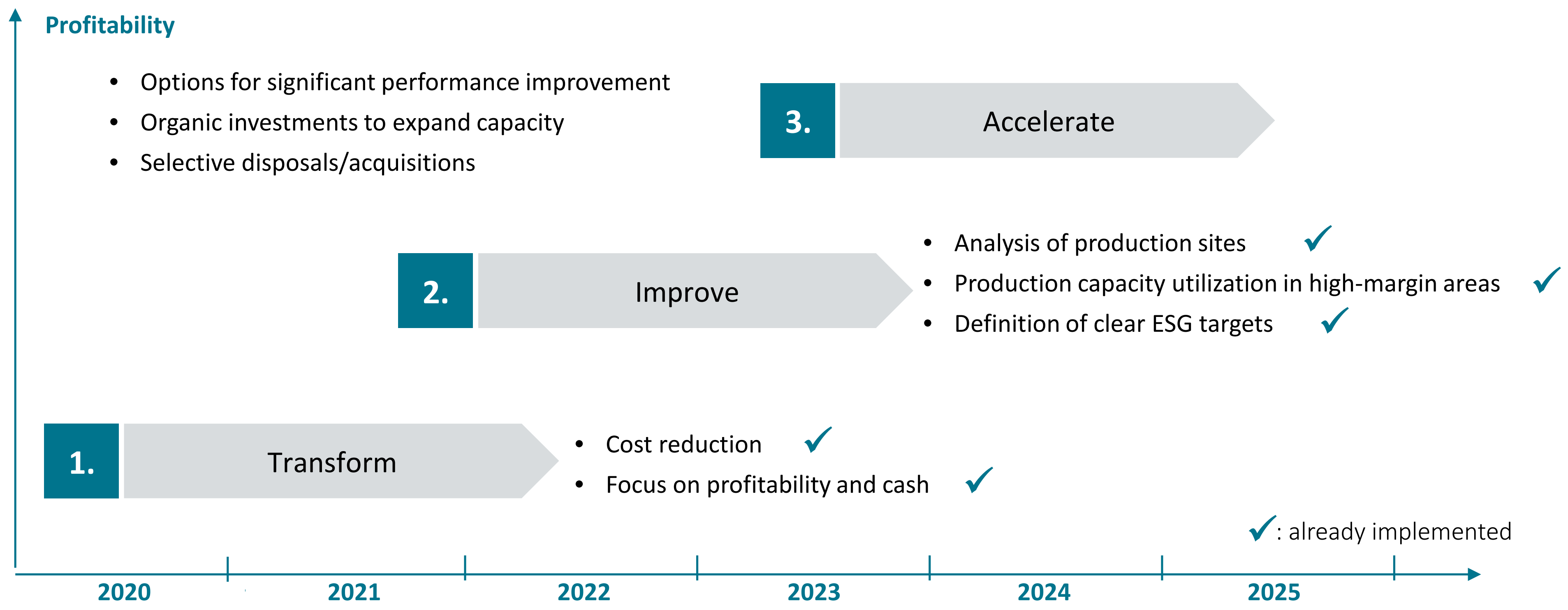
The global challenges of our time include climate change, digitalization, the creation of renewable forms of energy and increasing demand for climate-friendly and resource-saving products and solutions. We see these challenges as opportunities to sustainably align SGL Carbon's business model and continue to successfully shape the future of the company. In doing so, we combine our economic goals with our sustainability ambitions.

The long-term objective of SGL Carbon is still to increase enterprise value through sustainable, profit-driven growth. Generating the capital costs, having sufficient financial capacity and maintaining an adequate financing structure are necessary prerequisites for guaranteeing long-term entrepreneurial ability to act. In addition to financial capacity, the company contributes to environmental and climate protection as well as to social development. This includes responsibility for our employees, our supply chains, customer data and information security, as well as unconditional compliance with laws, regulations and standards. The Group strategy of SGL Carbon is aimed at achieving these objectives.

Corporate strategy

Our mission is to positively shape the future by developing cutting-edge carbon-based products - for all industries and areas of life. With its materials, products and services, SGL Carbon is already serving markets that are helping shape the future trends of environmental and climate protection as well as digitalization. That is why we focus on promising markets that support these trends and offer commensurate growth opportunities: mobility (including electromobility and fuel cell vehicles), renewable energy industries (solar, wind energy) and the semiconductor industry. These are our most important markets. We will concentrate on them and participate in their growth in the future.

SGL Carbon has been pursuing a highly focused strategy of driving growth and profitability and thus increasing enterprise value since 2020, when it appointed a new Board of Management. This pursuit has always been closely linked to our sustainability ambitions. We have successfully achieved most of the milestones defined in 2020.



Transformation

Following economically difficult years, we focused on the extensive and fundamental transformation of SGL Carbon from 2020 to the end of 2022. Our goal was to improve SGL Carbon's economic performance and create the basis for future growth. In addition to a restructuring program to reduce costs and improve liquidity, the transformation focused in particular on measures to reorganize and simplify structures and processes. In order to meet the dynamic requirements of customers faster and in a more focused manner, two heterogeneous business units with very different customer structures and few synergistic effects were split into four business units responsible for financial results as of January 2021. In the course of the transformation from 20 to ten departments, the central functions were consolidated in order to reduce costs and interfaces. As part of the restructuring, annual savings of more than €100 million were to be realized by 2023 (compared to the base year 2019). With savings of approx. €178 million as of December 31, 2022, this target was more than achieved. The restructuring phase was completed ahead of schedule at the end of 2022.

Improvement

All global production sites were subjected to an efficiency and cost review to further improve profitability starting in the transformation phase. According to the analysis carried out, site-specific measures were defined in order to increase the performance of the individual sites. Every production site must operate economically and contribute to the profitability of SGL Carbon.

This prompted the decision to sell the site in Pune (India) and the operational business activities of Composite Solutions at the site in Gardena (USA) at the end of 2022. Pune mainly served the Process Technology (PT) business unit as a production and service center for local customers in India, who are now served from other locations. The transactions closed in the first half of 2023.

Analysis of the sites also encompassed organic capacity expansion as well as a clear focus on the four business units' profitable and future-oriented products. Series production was expanded in Innkreis (Austria) where battery boxes, underbodies, leaf springs and other products are manufactured from composite material for the automotive industry. Furthermore, in the "Improvement" strategy phase, own funds were invested in expanding capacity for materials and products for the semiconductor industry.

To improve financial capacity, the company's net debt was reduced from €286.5 million at the end of 2020 to €115.8 million as of December 31, 2023. This reduced the gearing from 3.1 to less than 1. The equity ratio has also increased significantly from 38.5% to 41.1%.

A key step towards reducing SGL Carbon's debt consisted of refinancing our funding in 2022 and 2023. In September 2022, the convertible bond expiring in 2023 was redeemed early by issuing a new convertible bond (maturing in 2027). In the 2023 fiscal year, existing credit facilities were extended and another convertible bond (maturing on June 28, 2028) was issued. The corporate bond of €240 million due in 2024 was redeemed early using the issue proceeds of €118.7 million, a drawdown of €75 million on the term loan facility granted by the company's core banks in March 2023 as well as available cash and cash equivalents. The restructuring of the debt instruments not only reduced debt from €286.5 million (December 31, 2020) to €115.8 million as of December 31, 2023, but also significantly extended the maturity profile.

Corporate culture as a success factor

Parallel to the restructuring and reorganization, the "Formula Carbon" guideline was introduced at the beginning of 2021. The aim was to establish new working methods that prioritize efficiency and economic performance.

Additional measures were initiated in late 2022 to continue systematic development of the corporate culture. The initiative to improve SGL's performance culture has defined five values as the basis for our collaboration and our actions:

- Integrity and honesty
- Respect and appreciation
- Accountability
- Trust
- Passion for success

We have been exploring the importance of these values for employees and the extent to which they have been adopted in a Group-wide employee survey conducted every six months since November 2022. The aim of our performance culture is to continuously improve both our economic performance and our corporate culture. Further information on the "Performance Culture" initiative can be found in the CSR Report in this Annual Report.

Acceleration

The focus of the third phase to increase our profitability is the selective expansion of capacity for products that we believe harbor considerable potential for growth and profit margins. Investments are to be made in activities where SGL Carbon is already established, has relevant market expertise and customer relationships, and which also provide above-average future growth potential. The phase will focus on the organic expansion of production capacity. As it looks to develop individual product areas in the best possible way, the company will not exclude strategic and financial collaborations.

One of SGL Carbon’s fastest-growing and most attractive markets is the semiconductor industry, for which the Graphite Solutions business unit supplies components for high-temperature processes aimed at growing monocrystals for wafer production. We further increased our investments to accelerate the expansion of production capacity in this segment. In the 2023 fiscal year, we invested almost two thirds of SGL's capex budget (€87.1 million), generated from our own funds and customer payments, toward expanding capacity for materials and products for the semiconductor industry.

We also want to further expand our market position as one of the leading suppliers and service providers, particularly in the areas of renewable energies (solar, wind) and mobility – and in particular electromobility. In the process, we do not rule out close cooperation with external partners in areas with particularly attractive growth prospects and substantial investment requirements.

Improvement in the efficiency and performance of SGL Carbon is always in line with the company’s ESG strategy (see also the current, unaudited CSR Report as part of the Annual Report). Through binding objectives and measures, we are anchoring sustainability even more firmly in our corporate strategy, processes, structures and new projects. Sustainable management, the development of products that protect the environment and climate, and ethically impeccable action are key success factors for further improving the economic performance of SGL Carbon.

Corporate governance

SGL Carbon’s corporate governance pursues the main objective of increasing the economic and sustainable performance and therefore the enterprise value of SGL Carbon. SGL Carbon assesses its success based on the following performance indicators: profitable growth, measured not only by sales revenue but also by adjusted EBITDA (earnings before interest, taxes, depreciation and amortization, adjusted for one-off effects and non-recurring items), liquidity, measured by free cash flow (FCF), profitability measured by return on capital employed (ROCE) and financial strength, measured by net debt. We measure our sustainability ambitions using selected non-financial performance indicators relating to the environment, social welfare and corporate governance (Environmental, Social and Governance, ESG).

Management and control

A description of the cooperation between the Board of Management and the Supervisory Board can be found in the Corporate Governance and Compliance Report (unaudited). The Board of Management determines the Group’s strategic orientation. Fundamental business decisions of importance are made at two levels of management – the Board of Management and the heads of the business units. In addition, central functions support the Board of Management and provide Group-wide services for all business units and companies.

The Supervisory Board advises and monitors the Board of Management in managing the company.

Internal control system

SGL Carbon’s internal control systems support the overarching corporate objective of a long-term and sustainable increase in company value taking into account our own sustainability ambitions. Significant management tools include monthly management reporting based on the annual plan, which covers both the actual development and the forecast development for the rest of the year. The target/actual deviation analyses and the monthly rolling forecast incorporate new findings on business development, including key assumptions. In addition to annual planning, we also do medium-term planning which covers a period of four years. Planning is done by the four business units and corporate functions under central guidelines on the most important assumptions. Corporate Controlling consolidates the operational planning and derives from it personnel, investment and financial plans for the Group. The budgeted figures, including target/actual comparisons and the current forecast, are regularly explained to the Supervisory Board. The non-financial performance indicators are also regularly captured, evaluated and reported to the Board of Management and the Supervisory Board.

In addition to monthly management reporting, the top management levels and commissioned steering groups hold regular meetings in which they control and monitor special investment projects, possible transactions and defined areas of responsibility such as personnel issues, occupational safety, compliance and environmental and climate protection.

Financial control key performance indicators

SGL Carbon uses the following key performance indicators to determine and monitor financial success:

In addition to sales, adjusted EBITDA (earnings before interest, taxes, depreciation and amortization, adjusted for one-off effects and non-recurring items) is the most important key performance indicator for measuring SGL Carbon's profitable growth. By using it, we depict the sustainable cash-effective earning power of the business units and the company. Our medium-term goal is to achieve a compound annual growth rate (CAGR) in sales revenue of approx. 8% and in adjusted EBITDA of around 14%.

We are also providing our earnings forecast for 2024 on the basis of adjusted EBITDA. As with adjusted EBIT, the following effects have been adjusted:

- Impairment losses (IAS 36) and amortization of purchase price allocations (IFRS 3) and assets held for sale (IFRS 5);
- Restructuring expenses;
- Proceeds from the sale of land and buildings;
- Income from insurance compensation, to the extent that this is not offset by corresponding expenses in the respective reporting period;
- Other significant one-off effects that do not reflect operational business development.

Result before income taxes is another key performance indicator for the company.

Free cash flow and net debt is used to manage the Group's liquidity and financial strength. SGL Carbon's profitability is measured on the basis of ROCE. ROCE (return on capital employed) is defined as adjusted earnings before interest and taxes (adjusted EBIT) divided by average capital employed (total of goodwill, other intangible assets, property, plant and equipment, investments accounted for using the equity method and working capital). With ROCE of 11.3% in the 2023 fiscal year, we have achieved our target of ≥ 10%.

The variable remuneration of senior management (first three levels after the Board of Management) is based, among other things, on adjusted EBITDA (short-term incentive) and return on capital employed (ROCE) (long-term incentive). Other target variables for the short-term incentive (STI) include both individual personal targets for each manager and a Group-wide sustainability goal. In the 2023 fiscal year, this target was the achievement of a loss time injury rate of less than 2.4. Further information on the remuneration structure can be found in the remuneration report. This report has been formally and factually audited by KPMG AG Wirtschaftsprüfungsgesellschaft and will be available on the website at www.sglcarbon.com in the section "Investor Relations/Financial Reports" starting on March 22, 2024.

We supplement the most important financial key performance indicators with other indicators that provide us with information about the profitability and financial status of the Group.

Supplementary financial key performance indicators are the leverage ratio, as the ratio of net financial debt to adjusted EBITDA, as well as the equity ratio. Based on our successful transformation in the years from 2020 to 2022, the significant improvement in our profitability and the successful completion of our refinancing in 2023, we have significantly improved these key figures. As of December 31, 2023, the targets for the leverage ratio (0.7) and the equity ratio (41.1%) were achieved.

In the medium term, we assume a leverage ratio of ⩽ 2.5 and an equity ratio of significantly ⩾ 30%.

These financial management indicators are increasingly being supplemented by non-financial parameters.

Non-financial performance indicators

In addition to the financial key figures, the enterprise value and success of SGL Carbon is largely determined by non-financial performance indicators. We view sustainable and socially oriented management and action as an essential part of our corporate strategy. We have therefore set ourselves ambitious non-financial targets that we measure using performance indicators including the following:

- The health and safety of employees has top priority at SGL Carbon. As a responsible company, ensuring safe working conditions for our employees is an ethical obligation and a prerequisite for the company's performance. The key indicator here is the lost time injury rate (LTI rate). The LTI rate measures lost-time injuries per million hours worked. We intend to reduce the LTI rate by 5% each year. After 2.3 in 2022, the LTI rate in 2023 was 1.6, meaning that we clearly achieved our target.

  To emphasize the importance of occupational safety for SGL Carbon, the LTI frequency rate was again a target figure for the variable remuneration of senior management (STI) in fiscal year 2023 with an accident frequency rate of < 2.4.

- Energy consumption and CO_2 emissions, as well as energy intensity as the ratio of energy consumption to sales (economic output). As an energy-intensive company at various locations worldwide, we strive to reduce our energy consumption and CO_2 emissions out of ecological and economic responsibility. SGL Carbon has therefore set itself targets for CO_2 reduction and developed a long-term roadmap to climate neutrality (Scope 1 and 2) by 2038.

- Number of employees, including in particular diversity as measured by the proportion of women in senior management. A motivated and well-trained workforce is the basis for the success of SGL Carbon. At the end of the 2023 fiscal year, the number of employees was 4,808, of whom 43.7% worked in Germany and 56.3% abroad. The proportion of women in the top three management levels under the Board of Management was 22% as of December 31, 2023, and has thus already reached the target quota set for 2025. We intend to maintain this level in the coming years.

To improve the performance culture and thus employee satisfaction, we have been conducting a Group-wide employee survey and defining a performance culture index since late 2022. This will be improved through targeted measures and regularly reviewed by means of employee surveys. Our corporate values are an essential part of our performance culture: integrity and honesty, respect and esteem, responsibility, trust and passion for success.

In close consultation with the various stakeholder groups and based on legal requirements, SGL Carbon has developed a meaningful portfolio of non-financial key figures to make its sustainability progress measurable.

Non-financial Group report

Further information on the topics of sustainability, environmental and climate protection as well as other important ESG aspects can be found in the CSR report as part of this Annual Report. The CSR report also represents the separate non-financial Group report of SGL Carbon SE, which was subjected to a limited assurance engagement by KPMG AG Wirtschaftsprüfungsgesellschaft. This report will be available from March 22, 2024, on the website at www.sglcarbon.com in the "Company/Sustainability" section.

Research and development

Research and development activities are customer-oriented and take place in the operating business units

Research and development activities are carried out in the four business units. This will further strengthen the proximity of development to the customer and focus strategic research and development projects more strongly on near term market opportunities.

The development activities of the business units derive directly from the strategic objectives of the product groups or business lines and are shaped by the market trends, customer requirements and market environment in each case.

Highlights from the business units (unaudited)

Business unit Graphite Solutions (GS) – expansion of strategic growth areas

GS's strategic growth areas are in the market segments of digitization, mobility and energy. The development portfolio covers the changing product requirements of customers in these market segments.

Development activities in the Electronic and Industrial Solutions business line focus on products for the manufacture of silicon carbide power semiconductors. The components used include isostatic graphite, porous graphite and insulating materials made of hard and soft felt. Working closely with customers, we succeeded in precisely tailoring the product properties to the requirements of high-temperature processes in semiconductor production. Advances in chemical purity, material homogeneity and adjustments to thermomechanical properties have further improved yields and efficiency in customer processes. The steep rise in demand for graphite and insulating materials in the manufacture of silicon carbide semiconductors was met by development activities and innovations in the company's production environment.

Graphite components with ceramic coatings are used for processing semiconductor chips. Two particularly noteworthy developments are the innovative coating solutions known as Sigrafine® Advanced and the increase in efficiency in manufacturing processes.

Other focuses of development include gas diffusion layers and bipolar plates as fuel cell components as well as graphite anode material for lithium-ion batteries. Important progress has been made in terms of product properties as well as production technology.

Electrical contact materials are a core area of the Mechanical Solutions business line. One key topic in this area is the further development of our portfolio of high-performance contact materials for the latest wind turbines and automotive applications.

The GS business unit is one of the technology leaders in graphite sealing materials. Sigraflex® gaskets are constantly being refined as the standard for sealing technology. An innovative surface treatment system reduces leakage rates while improving non-stick properties.

Development activities for evaluating and sampling alternative raw materials are underway for all product groups in the GS business unit. These activities include looking at closed substance cycles and by-products. These medium- to long-term studies are conducted to ensure sustainable supplies of raw materials and resource-friendly production.

Business unit Process Technology (PT) – achieving market leadership through technological innovation

The aim of the PT business unit is to achieve market leadership through technological differentiation from the competition. This is achieved through continuous development and innovation at various levels. Product refinements and cost optimization make the current portfolio more competitive, while newly developed products enable access to new applications and sales markets. The business unit's long-term product development is based on design studies and collaborations with strategic partners from various industries and leading research institutes. Its key principles include increasing resource use, reducing emissions and waste streams, and using alternative and renewable energy sources.

For example, in an ongoing research project, we are currently developing a design for directly electrically heating a heat exchanger. The goal is to replace the classic heat transfer medium of steam – which is usually generated using fossil fuels – with renewable electrical energy.

Business unit Carbon Fibers (CF) – focus on technologies to improve sustainability

In the past year, the CF business unit has been involved in new research projects in the field of concrete reinforcement with thermoplastic composite rods, known as "rebars".

The substitution of metal reinforced concrete rods with innovative, highly thermoplastic composite rods offers significant potential for CO_2 reduction in the construction industry.

Under the working title "fromBar", a joint research project with the Karlsruhe Institute of Technology (KIT) is to be launched in 2024 with the aim of using this new concrete reinforcement technology on an industrial scale.

Activities also focused on research into pressure vessels for hydrogen, which is required as an energy source for fuel cells. The business unit's new fiber types will be used in the pressure vessels.

Business unit Composite Solutions (CS) – Future field e-mobility

The core activities of the business unit CS lies with composite components for automotive applications in the mobility sector. With the switch to climate-friendly drives, the automotive industry is currently undergoing the greatest transformation since its inception; completely new applications such as battery housings demand innovative solutions. Composite materials, which SGL Carbon manufactures in large series using highly efficient processes, are often ideally suited for this.

In order to be a technical leader and provide our customers with the support they need, we have closely aligned internal development to the needs of our customers. Although the previously mentioned battery housing applications are subject to stringent requirements in terms of impact and fire exposure, they can be solved particularly well with composite materials. Our internally developed test benches for these load cases exceed current industry standards and have enabled us to develop materials and components at the highest level over the past year. This means we can already answer the most important customer questions and establish precisely defined development objectives in the inquiry phase of a project. We supplement our material expertise with component design know-how and simulation capabilities so that we can offer our customers solutions up to the finished product from a single source. As a result of this consistent innovation work, for instance, a battery housing component manufactured in a newly developed process chain based on powdered phenolic resins and continuous glass fiber reinforcement was awarded the prestigious Innovation Prize of the Reinforced Plastics Industry Association (AVK).

In the area of sustainable composites, fiber-reinforced composites with a reduced carbon footprint and improved recyclability, we consistently drove forward our development last year. For example, a three-year research project was launched with various industry and research partners with the aim of developing a battery housing that can be manufactured in a particularly resource-efficient way and can be recycled more easily. The intensive collaboration with various companies from the recycling industry for reprocessing fiber composite components, which began in the previous year, was continued and expanded to include new approaches.

Sustainability forms the central plank for current and future development. All development activities are checked to see how they contribute to improving the sustainability of our products. The aim is to offer composite components with a significantly reduced CO_2 footprint, in line with our own sustainability goals and those of our customers.

Industrial cooperation and research networks as the key to success (unaudited)

SGL Carbon continues to be an active member of the executive committees of the international scientific carbon societies.

As a co-founder of the Lithium-Ion Battery Competence Network (Kompetenznetzwerk Lithium-Ionen-Batterien, KLiB), SGL Carbon works together with BASF, Bosch, Daimler, BMW and other companies and institutes to develop the value chain for lithium-ion batteries in Europe, and appoints the chairman of the board of this committee.

SGL Carbon is an active member of Composites United e.V. This association of companies and research institutions covers the entire value chain of high-performance fiber composites in Germany, Austria, and Switzerland.

SGL Carbon also presides over the Automotive Composites Alliance working group within the American Composite Manufacturers Association. SGL Carbon is also represented on the board of the DAI - Deutsches Aktieninstitut.

In addition, SGL Carbon is a member of the Working Group on Carbon (Arbeitskreis Kohlenstoff, AKK) and is represented on its board. This is an independent interest association in both the German Ceramic Society and the European Carbon Association that aims to promote research in the field of carbon.

Economic Report

Overall economic and industry-specific underlying conditions

Economic conditions

According to analyses by the International Monetary Fund (IMF), the **global economy** proved to be more resilient in 2023 than originally expected, amid a significant tightening of monetary policy and ongoing political uncertainty globally. Several major developed economies have been remarkably resilient, with stable labor markets supporting consumer sentiment. According to IMF calculations, global economic growth came to 3.1% in 2023. While growth in the developed economies was 1.6%, thus 100 basis points below the previous year, the emerging and developing economies were at a significantly higher level in 2023 at 4.1% (unchanged from the previous year). This allowed the global economy to avoid a recession in 2023, the worst-case scenario. Inflation gradually decreased in most regions as a result of interest rate hikes.

The **United States** economy developed well last year with growth of 2.5% after 1.9% in 2022. Robust consumer spending due to solid budget balances and stable labor and housing markets supported the better-than-expected growth in 2023. Despite the aggressive tightening of monetary policy by the Fed (Federal Reserve System), the unemployment rate in the third quarter of 2023 was only 3.7% according to an analysis by the United Nations (UN). Robust house prices supported the net wealth of homeowners, leading to a strong wealth effect and resulting in a high level of household spending.

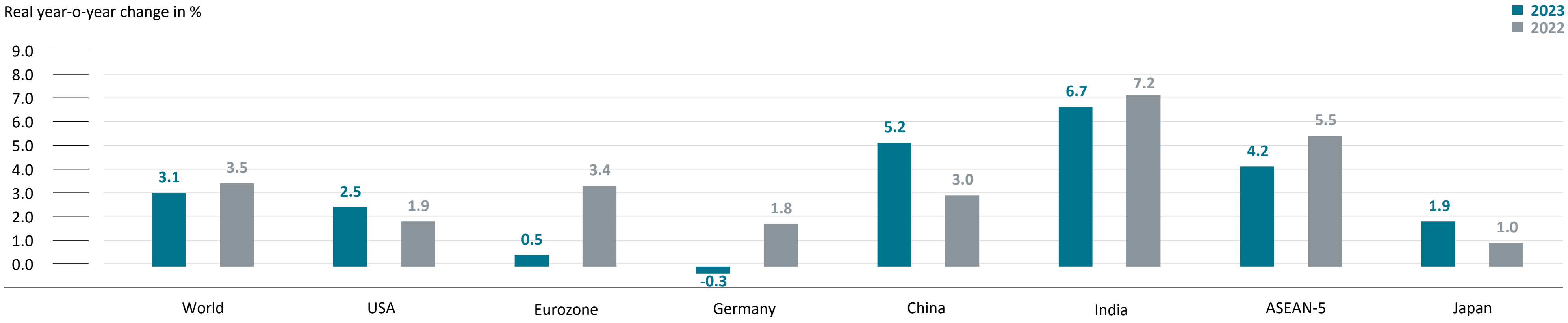
According to IMF calculations, gross domestic product (GDP) in the **eurozone** grew by only 0.5% in 2023 (2022: 3.4%). The massive interest rate hikes by the European Central Bank have impacted the real economy as Europe is also facing major structural challenges. Based on UN analyses, the provision of bank loans to the private sector slowed significantly in 2023 as banks tightened credit standards and demand for credit from companies and households declined. Consumer and business confidence slightly deteriorated in the third quarter of 2023. Although supply bottlenecks have eased, the industrial sector in Europe is undergoing a structural transformation. This is mainly due to a shift in consumer spending to services, the declining competitiveness of energy-intensive industries, the lack of skilled labor and geopolitical uncertainties, which limited growth. According to the UN, after a strong start in 2023, the services sector lost ground in the second half of the year despite the ongoing recovery in tourism.

Among the major economies in Europe, **Germany** was particularly hard hit by increasing energy prices, tightening monetary policy and the weaker-than-expected recovery in demand from China. According to IMF calculations, economic development in Germany in 2023 was slightly negative at minus 0.3%. Structural challenges, including underinvestment, labor shortages and dependence on energy-intensive industries, have slowed the expected upturn in 2023 and brought Germany to the brink of recession.

The economic recovery from the COVID-19 restrictions was slower than expected in **China**. The Chinese economy reversed course in the second half of 2023, meaning that the growth rate of 5.2% for 2023 represents a significant increase compared to 3.0% recorded in the prior year. Lower interest rates, as well as increased public sector investment financed by new bonds, boosted growth, according to UN research. While consumption was an important growth driver, consumer confidence remained low in 2023.

According to the UN, global **inflation** fell in 2023, but remained above the average for the years 2010-2019. Total global inflation fell from 8.1% in 2022, the highest level in almost three decades, to 5.7% in 2023. Inflation in most developing countries peaked in 2023. According to the European Central Bank (ECB), the inflation rate in the eurozone fell from 8.4% in the previous year to 5.4% in 2023.

Gross domestic product in 2023 (2022) at a glance



Source: Source: IMF, World Economic Outlook (Update) January 2024.

Development of important customer industries

Market segment Mobility

Automotive industry: Global growth in 2023, additional growth with increasing electrification also expected in 2024
Following the significant decline in 2020 (minus 16.2%), the automotive industry recovered in the following years, though it has not yet returned to pre-pandemic levels of 2019. After growth of 6.6% in 2022, global production in 2023 increased to just under 85.7 million vehicles, according to industry experts from Roland Berger. This represents an increase of approximately 4.1% compared to the previous year.

While production volumes increased in markets such as Europe, North America, Japan and South Korea, in some cases significantly, sales in the Chinese, South Asian and South America markets stagnated and were roughly at the previous year's level.

After challenging years dominated by geopolitical events, the market largely recovered from strained supply chains. The decline in inflation and an expected turnaround in interest rates mean that sales are also expected to increase in 2024.

After a decline in growth rates, the industry experts at S&P expect the electric vehicle (BEV) sector to continue to grow in 2024, meaning continuous electrification of the overall market.

The OEMs' model range is expected to expand, with an increasing proportion of electrified vehicles and a dedicated platform for these models.

The use of composite materials in battery housings for electrified vehicles was further expanded during the year and will continue to gain influence. Composite materials also play an important role in fuel-powered vehicles since the use of these materials can further reduce fuel consumption and therefore also CO_2 emissions.

Work is also continuing on hydrogen-powered vehicles as an additional drive solution, where composite materials have proven themselves as a material within the fuel cell and also as a structural application in the Type 4 pressure tanks.

Market segment Energy

Lithium-ion battery: Sustained booming demand for electromobility

Lithium-ion batteries (LIB) are key components for the growing electromobility in the automobile industry. They are also increasingly important for storing the electricity produced by renewable energy installations. The need as well as the demand for high-performance batteries for electric vehicles is high and therefore the automotive industry has now become the most important driver of this market, in terms of volume and technological advancement.

The industry source EV-Volumes.com forecasts that battery electric vehicles and plug-in hybrids will reach approximately 14.1 million units in 2023, representing a sales increase of approximately 34% compared to the previous year.

SGL Carbon is one of the few European suppliers of synthetic graphite anode materials for lithium-ion batteries, and our versatile production process enables us to flexibly adapt our products to special application requirements.

Wind industry: Expansion of wind energy in turmoil

The global economy is currently facing a number of macroeconomic challenges, including climate change, a lack of energy security and, in some cases, a lack of access to energy, as well as rising inflation and debt. The expansion of renewable energies - particularly wind and solar energy - can make a major contribution to mitigating these challenges.

International energy agencies and net-zero roadmaps agree that wind energy has an important role on the road to net zero. The IRENA (International Renewable Energy Agency) from the World Energy Transitions Outlook and the net-zero scenario of the International Energy Agency (IEA) foresee a cumulative installed wind power capacity of 2.75 to 3.5 TW (terawatts) by 2030. This would mean that the wind fleet installed worldwide today would have to be increased by a factor of 3 to 3.5 over the next 7 years up to 2030.

However, the actual expansion of wind energy and the manufacturing and production capacities required for this are still far below this level. The Global Wind Energy Council (GWEC) forecasts that by 2030, just over 2 TW of installed wind capacity will be reached worldwide. This leaves a significant gap of up to 1,500 GW between real growth and the environmental goals, but also keeps the pressure high for faster expansion.

However, the profitability of turbine manufacturers has come under pressure in 2023 due to the development of high material and energy costs in 2022 and 2023, high inventories and increased financing costs. Production costs have gone up by up to 40% compared to the period before 2022. The contractual arrangements for turbine manufacturers are often based on old 2021 pricing (as some onshore and offshore contracts include fixed prices), meaning that supplying the companies is sometimes associated with high losses. As a result, projects were postponed or canceled entirely and production capacities were reduced, which led to the crisis spreading throughout the entire supply chain. The impacts of this will be clearly felt in the supply chain in 2024, before the projected recovery sets in starting in 2025.

Higher efficiency and capacity are driving the development and installation of larger wind turbines with rotor blades with lengths of over 100 meters. Manufacturers are increasingly relying on rotor blades whose structure requires carbon fibers because they are stronger, more rigid and turbine dynamic. In addition to the expected market growth, the technical shift towards the use of carbon fibers will also have a positive impact on the global demand for carbon fibers in the wind industry.

Solar / polysilicon: Continued growth in photovoltaic systems

The increase in solar PV installations drives growth in the polysilicon market. Based on the decreasing costs of solar PV components and systems, the number of solar PV installations worldwide has significantly increased. Solar energy is now more cost-effective than most fossil fuel-powered generators, according to Technavio's calculations, and has become one of the most cost-effective options for generating electricity.

According to estimates by the International Energy Agency (IEA), approximately 37% of global electricity generation capacity from renewable sources comes from photovoltaics. Global photovoltaic installations are expected to have increased by nearly 32% to approximately 1,550 GW in 2023.

Therefore, the demand for polysilicon is expected to be high in the future to support the expansion of renewable energy.

With components made of special graphite, SGL Carbon offers solutions for the highly sensitive process of crystal growth in the manufacturing of solar cells for the photovoltaics industry. These include heaters, crucibles and heat shields made of high-purity fine-grain graphite or carbon fiber-reinforced carbon, as well as insulation components made of graphite felts.

Fuel cells: Attractive niche with growing market sales
Fuel cells (FC) are gaining importance as part of the global energy transition. According to the market research company MarketsandMarkets (MaM), government measures and subsidies for research and development play a decisive role in the growth of the fuel cell market. Increasingly strict government regulations on greenhouse gas emissions and the rising demand for fuel cell vehicles will be important drivers for the fuel cell market. MaM estimates global sales in the fuel cell market at approximately USD 3.3 billion (2022 USD 2.6 billion).

SGL Carbon develops and produces carbon-based products for polymer electrolyte membrane (PEM) fuel cells, including, for example, gas diffusion layers (GDL) and foils as separator plates for fuel cells and redox batteries (expanded graphite).

Market segment Digitalization

Semiconductor / polysilicon: Temporary slowdown in 2023 mainly due to the decline in demand for integrated circuits - power electronics with further growth
The semiconductor industry is the second major processor of polysilicon, after photovoltaics. Smartphones, computers, power supply units, LEDs, the internet, solar cells - all of these only work with semiconductors.

PC deliveries are expected to fall by 14.8% in 2023 (2022: minus 16.2%) to approximately 242 million units, the lowest since 2006. Gartner assumes that the PC market will return to annual growth, but expected price increases for components as well as geopolitical and economic uncertainties could pose a challenge.

In a recent publication based on preliminary data, IDC forecasts 1.16 billion smartphone shipments, which corresponds to a decline of 3.5% for 2023 (minus 11.3% in 2022).

According to preliminary results from Gartner, global semiconductor sales will fall by 11.1% in 2023 (2022: +0.2%). Lower demand from smartphone and PC customers as well as weakening spending on data centers/cloud services impacted the decline in sales. The strong demand for chips to support artificial intelligence (AI) will not be enough to save the semiconductor industry from a double-digit decline in 2023.

According to World Semiconductor Trade Statistics (WSTS), the total semiconductor market in 2023 was characterized by weakness in integrated circuits, especially in the first half of the year. Within the total semiconductor market, the segment with discrete semiconductor components (such as transistors, diodes etc.) benefited from growth in 2023. According to WSTS, growth of 5.8% is expected for discrete components in 2023, driven primarily by power electronics applications. This includes SiC-based power semiconductors.

The industry association SEMI predicts that sales of semiconductor manufacturing equipment by OEMs will reach USD 100 billion in 2023, down 6.1% from the industry record set in 2022. The decline in 2023 is expected to be a temporary effect due to the cyclical nature of the semiconductor market caused by declining semiconductor demand and an inventory correction. According to Yole, the market for discrete power electronics components as part of the semiconductor market is developing much more steadily with positive growth rates due to strong demand.

Artificial intelligence (AI) is accelerating the pace of innovation in the development and production of semiconductors, which could increase the demand for high-performance materials. As semiconductors become increasingly complex and performance-oriented, the need for specialized materials and components is likely to increase.

SGL Carbon offers solutions for the manufacture of semiconductors with components made of specialty graphite. Examples include graphite crucibles, heating elements and susceptors made of graphite, as well as silicon carbide-coated products and special graphite felts for thermal insulation.

LED: An energy-saving solution in traditional lighting applications
LEDs are durable, economical, ecologically beneficial and flat. They replace conventional technologies and make a large number of innovative applications possible in lighting and electronics, in automotive engineering and in various industrial processes including medical uses.

The increasing cost of raw materials and high inflation caused by the Russia-Ukraine war and the pandemic problems in China have lowered the demand in the consumer market and increased the inventories of finished products. As a result, the value of the LED market decreased by about 19% in 2022. Despite the persistently bleak macroeconomic outlook and significant uncertainty, TrendForce predicts that the value of the LED market will reach single-digit growth in 2023.

SGL Carbon offers solutions for the manufacturing of LEDs with components made of specialty graphite. Silicon carbide-coated susceptors (rotating wafer carriers) made of graphite are essential for quality.

Market segment Chemicals

Slight recovery in the global chemical industry driven by China after the slump in the previous year
According to calculations by the German Chemical Industry Association (VCI), growth in the global chemical industry has recovered slightly to 2.3% in 2023 following the significant slowdown in 2022 (1.5% growth after 7.3% in 2021). The increase in global growth was mainly due to the Asian region, particularly China. As the world's largest chemical producer, China grew by 9.5% in 2023, compared to 6.4% in 2022. Growth rates in North America (minus 1.9%), South America (minus 5.4%) and Europe (minus 6.7%) were negative in 2023. The European Union countries (EU 27) declined by minus 8.7 %. Germany was especially hard hit with a decline of minus 11.4% due to the weak economy and structural problems. According to the VCI, capacity utilization in Germany's chemical-pharmaceutical industry was just over 75% in 2023 and therefore well below normal capacity utilization, which is just under 85%. In Germany, the decline in production of petrochemicals and their derivatives and polymers amounted to minus 14.8% and minus 15.5% respectively. Inorganic basic chemicals were only slightly better at minus 10.8%. Only fine and specialty chemicals were less severely affected, with a decline of minus 4.2%.

SGL Carbon's business (Process Technology business unit), which focuses on investments in chemical plants, is typically late-cycle and has also benefited from maintenance orders, which normally take place during periods of lower capacity utilization.

Significant events for the business development

Impairment test

Demand for carbon fibers for the wind industry fell sharply since the beginning of the year and, according to current estimates, will not recover until 2024. As a result, SGL Carbon performed an impairment test of property, plant and equipment for the cash-generating unit (CGU) Carbon Fibers. On this basis, an impairment loss of €44.7 million was recognized on the assets of the Carbon Fibers business unit as of June 30, 2023.

Successful placement of a convertible bond and early repayment of the corporate bond (due 2024) and the 3.0% convertible bond (09/2023)

On June 28, 2023, SGL Carbon SE successfully placed non-subordinated and unsecured convertible bonds with a total nominal value of €118.7 million, maturing in June 2028. The conversion price was set at €9.7051, representing a 25% premium on the reference price of €7.7641. The fair value of the conversion rights (€14.9 million) was taken to the capital reserve upon the issue of the convertible bond and simultaneously deducted from the convertible bond liability. The coupon is 5.75% p.a., payable semiannually in arrears starting December 28, 2023.

The proceeds of €118.7 million from the newly placed convertible bond received in June 2023, with the funds from the €75.0 million term loan facility drawn down in July and the available liquidity, were used to buy back the outstanding volume of the corporate bond (maturing in 2024) of €237.4 million.

On March 31, 2023, SGL Carbon SE redeemed convertible bonds early with a scheduled maturity of September 2023 at their total nominal value of €31.6 million. This financial instrument has thus been repaid in full.

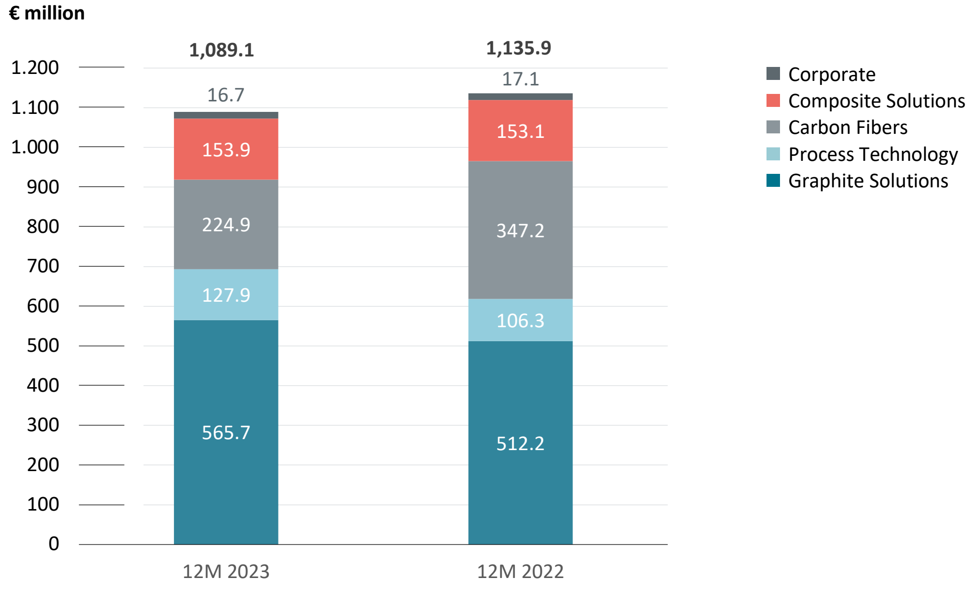
Sale of the operational business activities at the Gardena (USA) and Pune (India) sites

The assets and liabilities of the operational activities of SGL Composites Inc. at the Gardena site (USA) classified as assets held for sale as of December 31, 2022, were sold to an external buyer on February 16, 2023, and are therefore no longer included in the consolidated financial statements.

On April 28, 2023, the sale of SGL CARBON INDIA Pvt. Ltd, Maharashtra (Pune, India) was completed. The currency translation effects of approximately €1.6 million previously recognized in equity were recognized as an expense at the time of disposal. The income and expenses for both locations of approximately minus €1.0 million for the period from January 1, 2023, to closing are included in the segment presentation in the Corporate reporting segment.

Group business development

Group sales revenue development



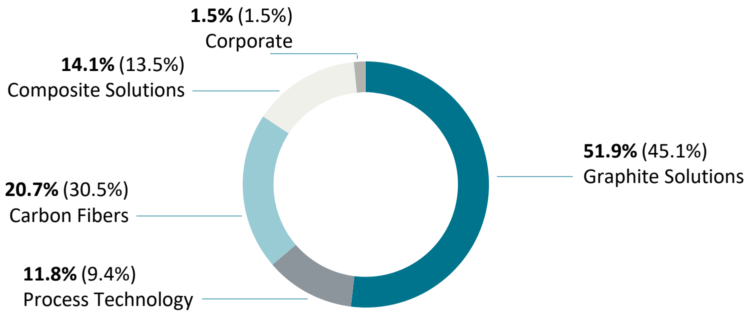
Record sales revenue for three out of four business units

SGL Carbon generated consolidated sales revenue of €1,089.1 million in the 2023 fiscal year (2022: €1,135.9 million). This represents a slight decrease of €46.8 million or minus 4.1% compared to the same period of the previous year. While price and product mix effects had a positive impact, the trend in volumes was slightly downwards, mainly due to weak demand in the Carbon Fibers business unit (CF). The sale of the Gardena and Pune sites at the beginning of the 2023 fiscal year also led to a decline in sales revenue of approximately 3%. Adjusted for currency translation effects, the decline in sales revenue was only 2.0%. Currency translation effects result from the currency translation of foreign subsidiaries whose functional currency differs from the functional currency of the Group (euro).

The decline in sales revenue is due in particular to volume effects in the Carbon Fibers (CF) segment. Demand for carbon fibers for the wind industry fell significantly in 2023, primarily due to regulatory barriers and significantly higher manufacturing costs for wind turbines as a result of increased energy and raw material prices. In contrast, the increased demand for SGL Carbon materials and products in the three other business units led to a positive volume effect. Currency translation effects were negative throughout the fiscal year and resulted primarily from the Chinese renminbi and a weaker US dollar against the euro.

The largest share of consolidated sales revenue is attributable to the Graphite Solutions business unit with 51.9% (2022: 45.1%). Due to the weak demand for carbon fibers described above, CF's contribution to revenue fell significantly from 30.5% to 20.7% in 2023. Composite Solutions and Process Technology performed well and contributed 14.1% (2022: 13.5%) and 11.8% (2022: 9.4%) respectively to consolidated sales revenue. Corporate sales revenue remained unchanged at 1.5% (2022: 1.5%).

Sales by business unit 2023 (2022)



Three of the four operating business units achieved record sales in the 2023 fiscal year and contributed to the increase in Group sales revenue. The largest contribution to the increase in sales revenue was made by the Graphite Solutions business unit (GS) with +€53.5 million, followed by Process Technology (PT) business unit with +€21.6 million and by Composite Solutions (CS) with +€0.8 million. Weak demand for Carbon Fibers (CF) led to a significant drop in revenue of €122.3 million, while the Corporate segment only saw a slight decline of minus €0.4 million.

Looking at the sales development based on market segments of SGL Carbon, customer orders from the semiconductor industry (Digitalization market segment) and growth in the Chemical segment in particular contributed to the sales revenue growth of SGL Carbon as a whole, with increases of €74.9 million (+40.1%) and €17.5 million (+13.0%), respectively. Due to the cyclical decline in demand in the Industrial Applications market segment, sales revenue fell by €28.6 million (-10.5%) in the 2023 fiscal year. Sales revenue in the Mobility segment also declined as expected due to the expiration of an important contract with an automotive customer in June 2022 (decrease of €39.7 million or minus 12.5%). The above-mentioned slump in demand from the wind industry and the change in the product mix towards applications in the Digitization segment led to a decline of €50.8 million (minus 33.2%) in the Energy market segment. Textile fibers were unable to escape the negative industry trend and were also down at €20.0 million (minus 27.4%). A detailed presentation of the revenue performance of the individual business units can be found in the segment information in this Group management report.

Regional development of consolidated sales revenue: Sales revenue in the US increased significantly

Europe was again the core focus of SGL Carbon's business with sales revenue of €490.4 million, representing 45.0% of the total (2022: 46.7%). Germany continued to be the largest single market with a share of €282.9 million, or 26.0% of the total (2022: 25.9%). With sales revenue of €302.0 million Asia was again the second-largest region, with a slightly lower sales share of 27.8% (2022: 29.0%). Sales revenue in the USA region improved significantly to €243.5 million and increased to a share of 22.3% (2022: 18.8%). Considering the sale of the Gardena site in the US (sales revenue in 2022: approximately €30 million), the increase in the US in 2023 is to be valued even higher.

Sales revenue by target region

€m	2023	Share	**2022**	**Share**	**Change**
Germany	282.9	26.0%	294.5	25.9%	- 3.9%
Europe excluding Germany	207.5	19.0%	236.2	20.8%	- 12.2%
USA	243.5	22.3%	213.8	18.8%	+ 13.9%
China	178.3	16.4%	181.1	16.0%	- 1.5%
Other Asia	123.7	11.4%	148.1	13.0%	- 16.5%
Rest of world [1)]	53.2	4.9%	62.2	5.5%	- 14.5%
Total	**1,089.1**	**100.0%**	**1,135.9**	**100.0%**	**- 4.1%**

[1)] Latin America, Africa, Canada, Australia

Financial performance of the Group

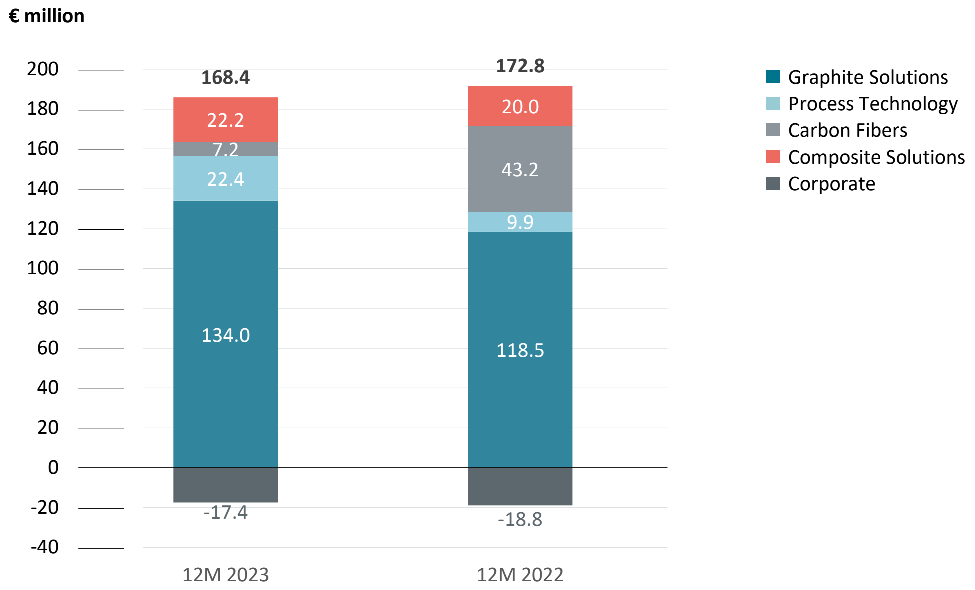
The pleasing business development in the GS, PT and CS business units, which in some cases exceeded expectations, was unable to fully compensate for the decline in demand in the CF business unit in the 2023 fiscal year. The associated slight decline in Group sales revenue development of minus 4.1% is also reflected in SGL Carbon's adjusted EBITDA. This fell slightly by 2.5% to €168.4 million (2022: €172.8 million) compared to the same period of the previous year. Despite the decline in demand in CF, the adjusted EBITDA margin actually increased slightly to 15.5% (2022: 15.2%) due to changes in the product mix of the GS, PT and CS business units. It should also be taken into account that the adjusted EBITDA for the same period of the previous year included costs of €9.2 million for energy price hedging transactions in the CF business unit.

In light of the challenging conditions due to the effects of the war in Ukraine and the weak demand for CF, the earnings performance in the 2023 fiscal year is to be valued even higher.

With an increase of 13.1% to €134.0 million (2022: €118.5 million), adjusted EBITDA in the GS business unit grew faster than sales revenue (+10.4%). This is mainly due to product mix effects since production capacities were increasingly allocated to the specialty graphite products for the semiconductor industry. The PT business unit also performed well, with adjusted EBITDA increasing by €12.5 million year-on-year to €22.4 million, more than doubling compared to the same period of the previous year. CS also made a positive contribution to the Group's adjusted EBITDA with an increase of €2.2 million or 11.0% to €22.2 million. Despite the good revenue and earnings performance of the three business units GS, PT and CS in the 2023 fiscal year, it was not possible to fully compensate for the decline in earnings at CF. CF's adjusted EBITDA decreased significantly from €43.2 million to €7.2 million. This is because of a significant decline in volumes. As discussed in the section on group sales revenue development, the current production and installation shutdowns in the European wind industry are leading to an almost complete standstill in customer demand. The idle capacity costs resulting from the low capacity utilization or partial shutdown of production capacities have a significant negative impact on the CF business unit.

A detailed presentation of the earnings situation in the business unit can be found in the results of operations of the reporting segments in this Group management report.

Earnings development - EBITDA adjusted



The trends presented are also reflected in the Group's consolidated income statement.

Income Statement (presentation adjusted)

€m	2023	2022	Change
Sales revenue	1,089.1	1,135.9	−4.1%
Cost of sales	−852.3	−875.3	−2.6%
Gross profit	**236.8**	**260.6**	**−9.1%**
Selling expenses	−99.3	−107.6	−7.7%
Research and development costs	−29.7	−29.3	1.4%
General and administrative expenses	−37.1	−41.2	−10.0%
Other operating income/expense	20.5	11.3	81.4%
Result from investments accounted for At-Equity	18.3	18.2	0.5%
EBIT pre	**109.5**	**112.0**	**−2.2%**
Non-recurring items and one-off effects	−52.9	8.9	-
EBIT	**56.6**	**120.9**	**−53.2%**
Financial result	−34.2	−26.3	30.0%
Result from continuing operations before income taxes	**22.4**	**94.6**	**−76.3%**
Income tax expense	19.3	31.3	−38.3%
Non-controlling interests	−0.7	−0.5	40.0%
Consolidated net result - continuing operations	**41.0**	**125.4**	**−67.3%**
Result from discontinued operations, net of income taxes	-	1.5	-
Consolidated net result (attributable to the shareholders of the parent company)	**41.0**	**126.9**	**−67.7%**
Earnings per share, basic (in €)	0.34	1.04	−67.3%
Earnings per share – continued operations, basic (in €)	0.34	1.03	−67.0%

Slight decline in gross margin

Compared to the decline in sales (minus 4.1%), the cost of sales fell disproportionately by minus 2.6% to €852.3 million, resulting in a decline in the gross margin from 22.9% to 21.7%. There was a positive impact from both volume effects due to higher sales revenue and from margin effects related to the product and customer mix in the GS reporting segment. In particular, higher revenue to customers in the semiconductor industry should be considered here. The underutilization of our production capacities in the CF business unit led to lower absorption of fixed costs, which more than compensated for the positive effects described above.

Selling, R&D and administrative expenses

With a decrease of 7.7%, selling expenses fell slightly faster than sales revenue to €99.3 million (2022: €107.6 million). The lower selling expenses compared to the previous year were mainly due to lower sales volumes in the CF business unit and a normalization of the sharp rise in transport and logistics costs in the previous year. The war in Ukraine and the temporary lockdowns in China meant that transport routes were disrupted in some cases in the previous year and the prices of delivery of goods were significantly higher.

By contrast, research and development costs increased slightly by 1.4% to €29.7 million (2022: €29.3 million). This is mainly due to increased personnel costs in the R&D area.

In the 2023 fiscal year, general administrative expenses decreased again by 10.0% to €37.1 million. General administrative expenses also include the variable compensation components of the management level, the amount of which is based primarily on the earnings performance of the Company. The further reduction in administrative costs is therefore mainly due to lower expenses for variable salary components.

Other operating income and expenses

Other operating income and expenses that cannot be allocated to functional costs amounted to net income of €20.5 million in 2023 (2022: net income of €11.3). Foreign currency effects resulted in a loss of €2.4 million in 2023 (2022: loss of €0.5 million). Conversely, income from public grants for projects of €13.5 million (2022: €6.4 million) from the reversal of provisions and deferrals of €4.1 million and insurance payments of €0.1 million (2022: €3.6 million) were included in the reporting year.

Result from investments accounted for At-Equity

Due to the continued positive business development of our joint venture Brembo SGL (BSCCB), net income from investments accounted for At-Equity increased slightly by 0.5% to €18.3 million in the 2023 fiscal year (2022: €18.2 million). Brembo SGL is one of the leading manufacturers of carbon ceramic brake discs, which are mainly used in sports and luxury vehicles.

One-off effects and non-recurring items

We use adjusted EBITDA and adjusted EBIT as our key earnings indicators. The key earnings figures are adjusted for the following effects:

- Effects of impairment (IAS 36), purchase price allocation (IFRS 3) and write-downs of assets held for sale (IFRS 5)
- Income / expenses from restructuring
- Proceeds from the sale of land and buildings
- Proceeds from insurance claims, except where offset by costs incurred in the reporting period
- Other material one-off effects that do not reflect the development of the business.

One-off effects and non-recurring items that are not included in adjusted EBITDA amounted to a net total of minus €52.9 million (2022: €8.9 million).

These mainly include the impairment of assets in the CF business unit of €44.7 million. In addition, an impairment loss of €4.8 million was recognized on specific property, plant and equipment at Composite Solutions (CS) due to the cancellation of an order.

The effects of purchase price allocations amounting to minus €1.3 million (2022: minus €5.7 million) relate to the amounts capitalized or recognized as liabilities from the acquisition of the SGL Composites companies. The scheduled termination of a major supply contract at the end of the first half of 2022 significantly reduced the amortization from the purchase price allocation.

No restructuring costs were incurred in the 2023 fiscal year. In the previous year, income from restructuring totaling €24.7 million arose, which is attributable to the agreement concluded in the 2022 fiscal year on the termination of the lease agreement relating to land not required for operations at the former Frankfurt-Griesheim site totaling €26.2 million. In addition, expenses from restructuring in the previous year mainly include costs for personnel-related measures as part of the transformation program amounting to minus €1.5 million.

The one-off effects totaled minus €2.1 million (2022: €10.1 million). The cumulative negative currency effects of €1.6 million from the disposal of the sites in India and Gardena were recognized as a one-off effect in the first half of 2023. In addition, other one-off effects of minus €0.5 million were incurred, mainly from consulting costs for a strategy project. The one-off effects in the 2022 fiscal year of minus €10.1 million mainly resulted from the impairment of assets due to the expected sale of the SGL sites in Pune (India) and the operating business in Gardena (USA) of minus €8.9 million, relation to the pension obligations of minus €5.5 million and from the recognition of compensation payments received for dismantling and disposal costs of €5.7 million through profit or loss.

The overview below shows the influence of the one-off effects and non-recurring items on the determination of the key financial indicators:

	2023	**2022**
EBIT	**56.6**	**120.9**
-/+ Income / expenses from restructuring	0.0	−24.7
+ Impairment and PPA-Effects	50.8	5.7
+/- one-off effects	2.1	10.1
EBIT pre	**109.5**	**112.0**
+ Amortization/depreciation expense on other intangible assets and property, plant and equipment	58.9	60.8
EBITDA pre (= EBIT pre plus depreciation and amortization)	**168.4**	**172.8**

Adjusted EBIT almost at previous year's level despite weak CF

Based on a slightly lower adjusted EBITDA (minus 2.5%) and considering slightly lower depreciation of property, plant and equipment and other assets compared to the previous year of €58.9 million (2022: €60.8 million), due to the impairment in the CF business unit, adjusted EBIT in the reporting period fell slightly by 2.2% to €109.5 million compared to €112.0 million in the previous year.

Considering non-recurring items and one-off effects totaling minus €52.9 million (2022: plus €8.9 million), EBIT amounted to €56.6 million (2022: €120.9 million). The significant decline is mainly due to the impairment at CF (€44.7 million).

Net financial result burdened by higher interest rates

€m	2023	2022	Change
Interest income	5.1	0.9	>100%
Interest expense on financial debt and other interest expenses	−20.7	−17.9	15.6%
Imputed interest convertible bonds	−4.2	−2.9	44.8%
Imputed interest financing lease and contract liabilities	−3.3	−1.4	>100%
Interest expense on pensions	−7.6	−3.0	>100%
Interest expense, net	**−30.7**	**−24.3**	**26.3%**
Amortization of refinancing costs	−3.1	−3.1	0.0%
Foreign currency valuation of Group loans	0.0	−1.5	-
Other financial income/expense	−0.4	2.6	-
Other financing result	**−3.5**	**−2.0**	**>100%**
Financial result	**−34.2**	**−26.3**	**30.0%**

The net financial result in 2023, at minus €34.2 million, deteriorated significantly by 30.0% compared to the previous year (minus €26.3 million). This is due to higher interest cost from pensions and financial liabilities as well as a decrease in the other financial results.

Interest income benefited from the improved interest rate level for financial investments and increased significantly to €5.1 million (2022: €0.9 million). However, these were more than offset by higher interest expenses, mainly for interest on pension provisions and interest on convertible bonds.

Interest expenses for financial liabilities include, in particular, interest from the convertible bond 2022/2027 issued in September 2022 for €101.9 million, the convertible bond 2023/2028 issued in June 2023 for €118.7 million with an interest coupon of 5.75% in each case and the utilization of the variable-interest term loan facility since July 2023 in the amount of €75 million. The corporate bond with an interest rate of 4.625% was repaid in July 2023 and is therefore only included in the interest expenses for 2023 on a pro rata basis. The average cash interest rate rose accordingly to 5.32% p.a. in 2023 (2022: 4.38% p.a.).

The non-cash imputed interest on the convertible bonds is established by approximating the below-market coupon with the comparable market interest rate at the time the convertible bonds were issued. Due to the issue of an additional convertible bond, the accrued interest component for convertible bonds increased significantly from €2.9 million in the previous year to €4.2 million in the 2023 fiscal year. The imputed interest on lease liabilities and the significant increase in non-current customer prepayments also resulted in non-cash interest expenses of €3.3 million, which are reported separately in the financial result (2022: €1.4 million). Due to higher discount rates, the interest expense on pensions in the 2023 fiscal year was €7.6 million, significantly higher than the previous year's expense of €3.0 million.

For further information, please refer to Note 24 to the Consolidated Financial Statements.

Overall, the other financing result was minus €3.5 million (2022: minus €2.0 million). In addition to the non-cash expenses for amortizing the refinancing costs of €3.1 million (2022: €3.1 million), the other financial result includes currency effects on intercompany Group loans, which totaled €0.0 million in the fiscal year (2022: minus €1.5 million). The valuation of the repayment options included in the financial liabilities resulted in an expense of €0.8 million in the 2023 fiscal year (2022: minus €0.6 million). In the previous year, other financial income and expenses included a positive effect on earnings of €2.9 million from the repurchase of convertible bonds by the company.

Group tax expense positive due to capitalization of deferred taxes

The total tax income for the 2023 fiscal year amounted to €19.3 million (2022: €31.3 million). This development was mainly due to valuation adjustments on deferred tax assets amounting to €31.0 million (2022: €41.8 million), based on good business development with correspondingly positive earnings prospects in the USA. At €13.4 million (2022: €11.4 million), current tax expenses were above the previous year's level and resulted from the positive operating earnings contributions of several Group companies.

For further information, please refer to Note 10 to the Consolidated Financial Statements.

Income attributable to non-controlling interests virtually unchanged

Non-controlling interests in the consolidated net result (minority interests) comprise the share of income attributable to minority shareholders. Minority interests in the SGL Carbon Group in the 2023 fiscal year related in particular to SGL Gelter (Spain), SGL Quanhai (China) and SGL A&R Immobiliengesellschaft in Lemwerder. The result attributable to non-controlling interests of minus €0.7 million (2022: minus €0.5 million) increased compared to the previous year due to the improved business development at SGL Quanhai.

Discontinued operations

Earnings from discontinued operations after income taxes came to €0.0 million (2022: €1.5 million). Earnings in the 2022 fiscal year were mainly due to the reversal of remaining provisions in connection with the sale of the former Aerostructures business unit, which was completed in 2015.

SGL Carbon earned a positive consolidated net result

Due to the overall solid business performance in 2023, SGL Carbon was again able to generate positive consolidated net income of €41.0 million in 2023 (previous year: €126.9 million) despite the impairment in the CF business unit, considering non-controlling interests and the result from discontinued operations. As already mentioned, the decline in the consolidated net result is due in particular to non-recurring items and one-off effects (minus €52.9 million or €8.9 million in 2022), a deterioration in the net financial result (€34.2 million compared to €26.3 million in 2022) and lower tax income (€19.3 million compared to €31.3 million in 2022). Based on an average number of shares of 122.3 million, basic earnings per share for 2023 amounted to €0.34 (2022: €1.04). When calculating diluted earnings per share, the potential new shares to be created from the 2023/2028 convertible bond and the 2022/2027 convertible bond, which have no dilutive effect in the 2023 financial year, must be taken into account. Diluted earnings per share for the year under review accordingly amounted to €0.34 (2022: minus €1.02).

Net result of SGL Carbon SE

SGL Carbon SE, the parent company of the SGL Group, reported a net income of €68.9 million for the 2023 fiscal year (2022: €241.8 million) in accordance with the German Commercial Code. The net income for the year is mainly due to the result of reversals of impairment losses on financial assets amounting to €174.3 million due to the improved earnings situation of Group companies (2022: reversal of impairment losses of €207.2 million). Offsetting effects resulted from impairment losses on financial investments amounting to €114.9 million at SGL Carbon SE and at its German subsidiaries (2022: €38.4 million). Despite the net income for the year, considering the accumulated loss carried forward from 2022 in the amount of €670.1 million, the total accumulated loss for 2023 was €601.2 million. The accumulated loss together with the share capital and the capital reserves and retained earnings results in a total equity of SGL Carbon SE of €950.1 million as of December 31, 2023.

Financial performance of reporting segments

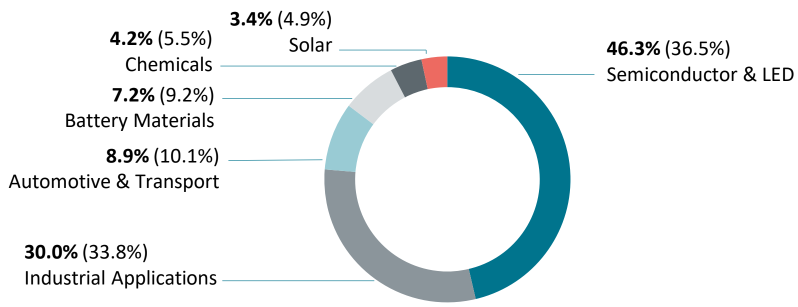
Reporting segment Graphite Solutions

€m	2023	2022	Change
Sales revenue	565.7	512.2	10.4%
EBITDA pre	134.0	118.5	13.1%
EBIT pre	104.6	88.9	17.7%
EBIT	104.6	86.0	21.6%
EBITDA pre margin	23.7%	23.1%	0.6%-points
Capital expenditures in intangible assets and property, plant and equipment	57.4	33.3	72.4%
Headcount (Year end)	2,686	2,527	6.3%

The largest business unit of SGL Carbon, "Graphite Solutions" (GS), continued to improve its sales revenue and earnings figures in the reporting year. GS increased its sales revenue by 10.4% to €565.7 million compared to the previous year (2022: €512.2 million). The increase is due primarily to the development of the important market segment Semiconductor & LED. Compared to the previous year, revenue with customers in the semiconductor & LED industry increased by 40.1% meaning that this market segment's share of revenue increased from 36.5% to 46.3% in the reporting year. This market segment therefore generates almost half of the sales revenue of GS. In particular, high customer demand for specialty graphite materials and components for the manufacture of high-performance silicon carbide semiconductors increased sales revenue in this market segment. In 2023, the share of sales of silicon carbide-based semiconductors (SiC) grew quickly to reach 61% (previous year: 49%) of the total market segment. SiC semiconductors are the next generation of semiconductors. They are more powerful, smaller, extremely efficient, and lose less energy. They are used mostly in the field of electromobility, in wind and solar energy, and wherever higher-performance semiconductors are required. For example, SiC semiconductors can significantly increase the range of an electric vehicle or shorten its charging time. The GS business unit also supplies important components essential for high-temperature processes for the manufacture of semiconductors.

Comparable components are also used in the solar industry. Since some of the production capacities were needed to supply the semiconductor industry, sales revenue of the Solar market segment decreased by 3.4% (previous year: 4.9%) in the reporting period. While sales revenue in the Industrial Applications and Automotive & Transportation market segments declined by a slight single-digit percentage, sales in battery materials and chemicals declined by a slight double-digit percentage. The Semiconductor, Industrial Applications and Solar market segments account for around 80% of the GS business unit's sales revenue.

GS business unit sales revenue by market segment 2023 (2022)



In conjunction with the increase in sales revenue, and the change in the product mix, adjusted EBITDA improved by 13.1% to €134.0 million (2022: +34.8% to €118.5 million). The adjusted EBITDA margin increased accordingly from 23.1% to 23.7%. There was a positive impact from both volume effects due to higher sales revenue and from margin effects related to the product and customer mix. In particular, higher sales to customers in the semiconductor industry should be considered here.

Adjusted EBITDA in the GS business unit was affected by higher raw materials and energy costs in the reporting year, as well as by increases in personnel costs to meet increased demand and foreign currency effects. However, the higher costs could be passed on to customers through successful pricing initiatives.

Since there were no non-recurring items or one-off effects in the reporting period, the adjusted and reported EBIT figures are the same. The previous year's figure included one-off effects amounting to minus €2.9 million, in particular expenses from the restructuring of pension obligations (minus €2.5 million).

Capital expenditure in the GS business unit totaled €57.4 million in 2023, and were therefore, as expected, significantly above the previous year (2022: €33.3 million). Capital expenditures were primarily made in new systems and machines for our focus markets of semiconductors, especially for SiC. Most of the capital expenditure were used to expand capacity at GS's semiconductor-related sites in Bonn, Meitingen, St. Marys (USA), Morganton (USA) and Shanghai (China). Almost all production steps are being expanded from green production to cleaning and machining. The following expansion measures were started or continued in 2023:

- Continuation of new plant construction for the production of soft felt at the Meitingen site, which began in 2022. Graphite felts are used as insulation materials in high-temperature processes, including in the semiconductor industry.
- Expansion of purification capacity by up to 100% at the St. Marys (USA), Shanghai (China) and Bonn sites.
- Increase in machining capacities at the Bonn and St. Marys (USA) sites.
- Expansion of capacity for porous components at the Morganton site (USA).

In the 2023 fiscal year, we received advance payments of around €70 million, especially from SiC customers, to expand our production capacities. In addition to the €40 million received in the first nine months, we received a further €30 million in the final quarter. The customer prepayments are linked to purchase agreements that ensure the utilization of our capacities.

Reporting segment Process Technology

€m	2023	2022	Change
Sales revenue	127.9	106.3	20.3%
EBITDA pre	22.4	9.9	>100%
EBIT pre	21.0	8.2	>100%
EBIT	21.0	4.5	>100%
EBITDA pre margin	17.5%	9.3%	8.2%-points
Capital expenditures in intangible assets and property, plant and equipment	1.5	1.0	50.0%
Headcount (Year end)	493	517	–4.6%

After an increase in sales revenue of 21.9% in 2022, the Process Technology (PT) business unit benefited from the continued good order situation in the 2023 fiscal year and increased its sales revenue by 20.3% to €127.9 million. Without the sale of the Pune (India) site, revenue growth would have been several percentage points higher. All three regions in which PT operates - EMEA, America and Asia - contributed to this development. The PT business unit's main customers are from the chemical industry. PT benefited from upcoming investments on the customer side (especially repairs and replacement investments), which had already been postponed since 2021 due to the pandemic. The business unit also benefited from a temporary expansion of the parts and service business (including early maintenance measures at customer sites). However, other industries with corrosive processes, such as the semiconductor and battery industries, are also increasingly using PT's expertise and product solutions. From order entry to order delivery, PT can sometimes take several months, as components are developed and built individually and are tailored to the customer.

The overall positive development of PT is also reflected in the adjusted EBITDA. This more than doubled compared with the same period of the previous year, from €9.9 million to €22.4 million. The significant revenue growth, continued strict cost management and focus on high-margin orders are reflected in the profitability of the business unit. The higher capacity utilization, the successful transfer of increased raw material costs and advantageous product mix effects led to an improvement in the adjusted EBITDA margin from 9.3% in 2022 to 17.5% in 2023. Energy costs play only a minor role in PT. This means that PT has more than tripled its adjusted EBITDA margin in the past three years, from 5.4% in 2021 to 9.3% in 2022 and 17.5% in 2023.

The adjusted EBITDA of the previous year did not include non-recurring items and one-off effects of minus €3.7 million, while no non-recurring items and one-off effects were incurred in the reporting year. These include in 2022 in particular expenses related to the sale of the Pune site in India (€2.9 million). The contract for the sale of the site was signed at the end of 2022. The closing took place on April 28, 2023. The previous year also included one-off effects from the restructuring of pension obligations amounting to minus €0.8 million.

Capital expenditures in the business unit totaled €1.5 million in fiscal 2023 (2022: €1.0 million). PT's capital intensity is significantly lower than that of the other business units because due to project-based contract manufacturing and the service business.

Reporting segment Carbon Fibers

€m	2023	2022	Change
Sales revenue	224.9	347.2	−35.2%
EBITDA pre	7.2	43.2	−83.3%
EBIT pre	−7.6	26.3	-
EBIT	−52.5	21.3	-
EBITDA pre margin	3.2%	12.4%	−9.2%-points
Capital expenditures in intangible assets and property, plant and equipment	12.0	9.6	25.0%
Headcount (Year end)	1,057	1,131	−6.5%

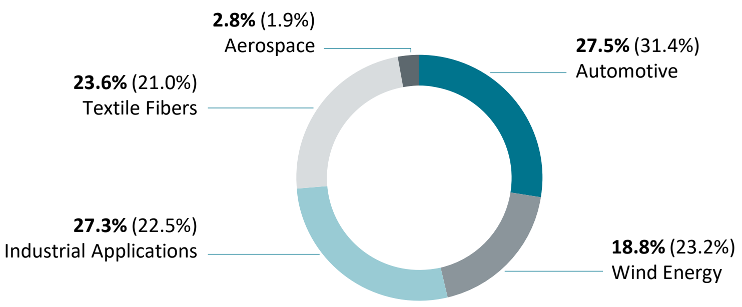
Sales revenue in the Carbon Fibers (CF) business unit fell significantly by 35.2% to €224.9 million in the 2023 fiscal year (2022: €347.2 million). The decrease is partly due to the planned expiration of an attractive supply contract for the BMW i3 at the end of June 2022. The production capacities freed up in the second half of 2022 were offset by new customer orders from the wind industry. This trend did not continue in the 2023 fiscal year, with demand for carbon fibers for the wind industry coming to a virtual standstill. The construction of wind turbines is currently stalling in Germany and in the rest of Europe. This development is due to regulatory obstacles as well as to a significant increase in the manufacturing costs for wind turbines as a result of high energy and raw material prices. In some cases this makes the construction of new wind farms unprofitable for operators. The high level of interest rates also had an inhibiting effect on the expansion of wind energy. As a result, demand from our wind industry customers fell dramatically in the 2023 fiscal year.

Due to the consistently disappointing demand from wind industry customers and the associated lower revenue and earnings situation of CF, with no prospect of a recovery in the second half of 2023 and increased capital costs, we performed an impairment test for the business unit's assets at the end of the second quarter 2023. This resulted in an impairment loss of €44.7 million, which was recognized as a non-recurring item.

However, because of the importance of wind energy in the fight against climate change and, in particular the implementation of the European Green Deal, we expect demand for carbon fibers from the wind industry to pick up again in the future.

For the reasons mentioned, revenue from both automotive (-43.1%) and wind customers (-47.7%) fell significantly. Revenue from the other CF market segments, such as Industrial Applications and Textile Fibers, were also lower than in the previous year and were therefore unable to compensate for the slump in the wind industry. We responded to the lower demand from the CF market segments by adjusting production capacities and implementing strict cost management from the second half of 2023.

CF business unit sales revenue by market segment 2023 (2022)



As a result of the disappointing sales revenue performance, the adjusted EBITDA in the CF business unit decreased by €36.0 million or 83.3% to €7.2 million compared to the previous year (2022: €43.2 million). In addition to the expiration of the high-margin i3 supply contract, this is primarily due to the decline in sales revenue combined with the idle capacity costs resulting from the temporary shutdown of production lines. Lower raw material and energy costs as well as lower personnel expenses only slightly offset the significant decline in revenue on the earnings side. In a period comparison, it should also be noted that the previous year's adjusted EBITDA included a negative one-off effect from energy price hedging transactions in the amount of €9.2 million.

The BSCCB joint venture, which is accounted for using the equity method, contributed €18.1 million to the CF result (2022: €16.3 million).

The impairment loss of €44.7 million from the second quarter of 2023 and €0.2 million for the amortization of the purchase price allocation led to EBIT of minus €52.5 million in the reporting year, which was significantly lower than in the previous year (2022: €21.3 million). The previous year's figure included EBIT effects of minus €5.0 million in relation to purchase price allocation.

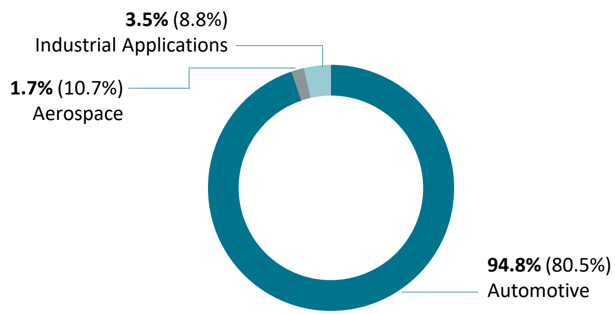
In the reporting year, the business unit's capital expenditures totaled €12.0 million, thus exceeding the previous year's level (2022: €9.6 million). This was mainly due to pure maintenance investments as well as the start of construction of a biomass facility as a substitute for a natural gas-powered plant for the production of steam at the plant in Portugal.

Reporting segment Composite Solutions

€m	2023	2022	Change
Sales revenue	153.9	153.1	0.5%
EBITDA pre	22.2	20.0	11.0%
EBIT pre	15.7	14.1	11.3%
EBIT	9.9	7.0	41.4%
EBITDA pre margin	14.4%	13.1%	1.3%-points
Capital expenditures in intangible assets and property, plant and equipment	5.3	5.9	−10.2%
Headcount (Year end)	437	454	−3.7%

The Composite Solutions (CS) business unit continued its positive revenue and earnings development of the last two years. Sales revenue increased only slightly by 0.5% to €153.9 million in the 2023 fiscal year (2022: €153.1 million). This is more significant as it fully compensated for the loss of sales revenue from the sale of the business at the Gardena site. This business generated sales revenue of approximately €30 million in the 2022 fiscal year. The revenue growth for CS in the reporting period was based mostly on increased customer demand from the automotive sector, the most important and largest market segment, which accounts for almost 95% of CS's sales. The business unit also develops and produces customized vehicle components made from various composite materials for customers in Europe and North America. Increased orders from the automotive industry, such as for leaf springs and battery boxes for electric vehicles, contributed to the increase in sales revenue at CS. Overall, sales revenue from automotive industry customers increased by 18.3% to €145.8 million in fiscal year 2023 (2022: €123.3 million). Other market segments include other industrial applications with 3.5% and the aerospace industry with a 1.7% revenue share. Both have shrunk significantly as a result of the sale of the Gardena site.

CS business unit sales revenue by market segment 2023 (2022)



The volume-related increase in sales led to a significant increase in adjusted EBITDA in the CS business of €2.2 million or 11.0% compared to the previous year to €22.2 million (2022: €20.0 million). This improvement is even more encouraging in light of the sale of the Gardena business. The previous year also included compensation received from automotive customers for early project completion amounting to €3.7 million, which has not repeated this year. Accordingly, the adjusted EBITDA margin improved from 13.1% in the previous year to 14.4% in the reporting year.

The non-recurring items and one-off effects in the reporting year amounting to minus €5.8 million (2022: €7.1 million) include expenses for impairment losses on property, plant and equipment amounting to €4.8 million due to the early termination of a customer's contract as well as approximately €0.9 million (2022: €0.7 million) in expenses for the continuation of the purchase price allocation. The previous year include €0.4 million in expenses from the reorganization of pension obligations and from restructuring. One-off effects in the previous year of €6.0 million were incurred in connection with the conclusion of a sales agreement regarding operational business activities at the Gardena site (USA); the closing took place on February 16, 2023.

Capital expenditures in the CS business unit were down from the previous year at €5.3 million (2022: €5.9 million). Capital expenditures focused in particular on the expansion of the "Large Scale Solutions" product area at the Innkreis production site in Austria.

Reporting segment Corporate

€m	2023	2022	Change
Sales revenue	16.7	17.1	−2.3%
EBITDA pre	−17.4	−18.8	−7.4%
EBIT pre	−24.2	−25.5	−5.1%
EBIT	−26.4	2.1	-
Headcount (Year end)	135	131	3.1%

The Corporate reporting segment reported sales revenue of €16.7 million in fiscal 2023, slightly above the previous year's level (2022: €17.1 million). The Corporate segment includes income from the rental of land and buildings and the provision of services to third parties.

Adjusted EBITDA in the Corporate segment improved by 7.4% (€1.4 million), which is primarily due to lower bonus expenses despite higher energy and maintenance costs. Adjusted EBITDA does not include non-recurring items and one-off effects of minus €2.2 million which are largely attributable to currency effects from the sale of the PT site in India. In the previous year, one-off effects of plus €27.6 million were incurred. This includes income from the termination of a lease to a plot of land not required for operations at the former Frankfurt-Griesheim site (€26.2 million) as well as compensation payments received for dismantling and disposal costs for the lease terminated by Showa Denko (€5.7 million). The previous year’s results also included one-off effects from the restructuring of pension obligations (minus €1.9 million), from restructuring (minus €0.8 million), and other one-off effects totaling minus €1.6 million.

Corporate capital expenditures increased significantly to €10.9 million in 2023 (2022: €3.1 million) This is the result of the new construction project for our joint venture Brembo SGL Carbon Ceramic Brakes (BSCCB) at the Meitingen site (€5.0 million). The joint venture with brake specialist Brembo S.p.A. (Italy) manufactures high-performance carbon-ceramic brake systems for premium-class private and commercial vehicles. To meet the increased customer demand, BSCCB's production capacity at the Meitingen site is being further expanded. The construction of two new production halls with an area of around 8,500 square meters is necessary for this project. In addition, €1.1 million was invested in the extension of a production hall for the new soft felt plant, also at the Meitingen site, and €2.5 million was invested in connection with the site of the sold Gardena business in the US. Otherwise, as in previous years, capital expenditure in the Corporate segment are mainly attributable to maintenance investments and purchased software licenses.

Financial position

Financial management

SGL Carbon’s financial management is conducted centrally in order to control liquidity, interest rate and exchange rate risk as best as possible, to ensure compliance with financial covenants, to optimize borrowing costs and to take advantage of economies of scale. The activities of financial management essentially include cash and liquidity management, Group financing via bank and capital market products, money supply for Group companies, customer credit management and the management of interest rate and currency risks.

The primary objective of financial management is to maintain the financial strength of SGL Carbon and ensure solvency at all times. Group Treasury — a centralized function at the Group holding company SGL Carbon SE — controls the activities of financial management worldwide and is supported in its activities by employees in the subsidiaries.

Liquidity management

Operational liquidity management is coordinated and controlled centrally. Control is carried out in close cooperation with the national and international subsidiaries. To the extent that it is legally and economically possible, the majority of cash in freely convertible currencies is concentrated in the Group holding company, SGL Carbon SE, using global cash pooling structures and is used for liquidity balancing between the Group companies. The majority of internal trading and clearing processes are automated via the centrally managed in-house cash center and processed without the need of external bank accounts. Here, the Group holding company acts as a clearing center for participating companies. Due to company disposals and internal restructuring measures, the number of companies participating in the central in-house cash center came to 26 at the end of 2023 (2022: 30). Where permitted, the weekly payments of supplier invoices are also processed via the global payment factory, meaning the Group’s global outflow of liquidity is managed centrally. In the 2023 fiscal year, an average of approximately 99% (2022: 99%) of global supplier payments were processed centrally.

In addition to annual financial planning — which usually extends over a period of five years — liquidity planning is carried out at intervals of one day to one year. The combination of financial and liquidity planning, the free liquidity available, the unutilized credit line and other measures ensure that SGL Carbon has sufficient liquidity reserves at all times. As an additional element of liquidity management, the enterprise has concluded factoring agreements under which trade receivables are regularly sold to factoring partners. The enterprise can thus react flexibly to cash flow fluctuations during the year and meet all payment obligations in good time at all times.

Cash and cash equivalents are invested taking into account the provision of sufficient liquidity for cash flow fluctuations during the fiscal year and the financial stability and systemic importance of SGL Carbon’s business partners. In addition, the performance and the success of cooperation with business partners over recent years are taken into account when investing funds.

Market price risks

When necessary, SGL Carbon uses both primary and derivative financial instruments to limit financial market price risks, in particular exchange rate and interest rate risks. Derivative financial instruments are only used to minimize and control financial risks. In terms of currency management, SGL Carbon concentrates on hedging the transaction risk from expected future operating cash flows. Here, the following key risk positions are considered:

- US dollar – euro
- Japanese yen – euro
- Euro – Polish zloty
- Chinese renminbi – euro
- Euro – British pound

Foreign currency forwards and, in some cases, standardized (“plain vanilla”) option transactions are regularly used as hedging instruments to hedge against currency risks.

Various currency forward transactions were concluded in 2023 to hedge the exchange rate risk for that fiscal year and the following year. Due to the use of primarily fixed-interest financing instruments, there is currently only a low interest rate risk. The held liquidity (€199.4 million as of December 31, 2023) also creates a natural hedge against interest rate risks for variable financing instruments. Therefore, no interest rate hedges were carried out in 2023. In individual cases, energy or raw material price derivatives are also concluded to hedge against price risks, as was done by one associate in 2023. Details on this and the impacts of hedging transactions can be found in the Notes to the Consolidated Financial Statements Note 27.

Debt financing analysis

Group financing is based on the strategic business plans of the operating business units and central Group planning. The financing of SGL Carbon at the end of 2023 consists primarily of the outstanding amount of the 2023/2028 convertible bond of €118.7 million issued in 2023 (coupon: 5.75%, maturing in 06/2028), the 2022/2027 convertible bond of €101.9 million issued in 2022 (coupon: 5.75%, maturing in 09/2027), the term loan facility of €75.0 million drawn in July 2023 and various bilateral loans totaling €19.6 million, some of which have remaining terms until 2032. In March 2023, the Company agreed with its selected banking partners on an early extension of its syndicated €175 million credit line, with a new maturity date of March 2026. The agreement maintains the total volume of the facility at €175 million, subdivided into a credit line of €100 million for general business use and a second line of €75 million (term loan facility) for the refinancing of capital market liabilities, which was utilized in July 2023 to redeem the corporate bond.

On June 28, 2023, SGL Carbon SE successfully placed non-subordinated and unsecured convertible bonds with a total nominal value of €118.7 million, maturing in June 2028. The conversion price was set at €9.7051, representing a 25% premium on the reference price of €7.7641. The fair value of the conversion rights (€14.9 million) was taken to the capital reserve upon the issue of the convertible bond and simultaneously deducted from the convertible bond liability. The coupon is 5.75% p.a., payable semiannually in arrears from December 28, 2023.

The proceeds of €118.7 million from the newly placed convertible bond received in June 2023, with the funds from the €75.0 million term loan facility drawn down in July and the available liquidity, were used to repay the corporate bond (maturing in September 2024) in full at a nominal value of €237.4 million.

In November 2023, the company also signed a mortgage-backed credit line of €20 million for the construction of a production building at the Meitingen site. This credit line had not been utilized as of the balance sheet date and is available to SGL Carbon SE without restriction.

At the end of the 2023 fiscal year, the company therefore had available credit lines for working capital and capital expenditure totaling €120.0 million (2022: €175.0 million). Cash and cash equivalents totaled €199.4 million as of December 31, 2023 (2022: €227.3 million).

Certain real estate, IT equipment and vehicles have been partially financed through leases. Details can be found in Note 24 in the Notes to the Consolidated Financial Statements.

Following the repayment of the corporate bond, SGL Carbon discontinued the previously externally commissioned ratings from the rating agencies Moody's and Standard & Poor's.

Upon termination of the external ratings, SGL Carbon's creditworthiness was assessed as follows:

Rating agency	Rating	Date of rating
Moody's	B2 (outlook: positive)	June 2023
Standard & Poor's	B (outlook: stable)	March 2023

Free cash flow significantly improved

The cash flow statement shows the change in SGL Carbon’s cash and cash equivalents in the reporting period. The cash inflows and outflows are classified as operating activities, investing activities and financing activities. Free cash flow is defined as cashflow from operating activities less cash flow from investing activities. The reported cash and cash equivalents include the balance sheet item cash and cash equivalents and time deposits.

Free cash flow increased to €95.6 million, compared to the previous year's figure of €67.8 million. Details are included in the consolidated cash flow statement in the consolidated financial statements.

Liquidity and capital resources

€m	2023	2022	Change
Cash flow from operating activities			
EBIT	56.6	120.9	−53.2%
Non-recurring items and one-off effects	52.9	−8.9	-
Depreciation/amortization expense	58.9	60.8	−3.1%
Changes in working capital	41.1	−8.0	-
Income taxes paid	−13.1	−12.5	4.8%
Miscellaneous items	−32.6	−57.9	−43.7%
Cash flow from operating activities	**163.8**	**94.4**	**73.5%**
Cash flow from investing activities			
Payments to purchase intangible assets and property, plant and equipment	−87.1	−52.9	64.7%
Dividend payments and capital repayments from investments accounted for At-Equity	10.7	15.7	−31.8%
Proceeds from the sale of intangible assets and property, plant & equipment	8.2	10.6	−22.6%
Cash flow from investing activities excluding term deposits	**−68.2**	**−26.6**	**>100%**
Free Cash flow	**95.6**	**67.8**	**41.0%**
Changes in time deposits	−65.0	-	-
Cash flow from financing activities	−121.7	−60.1	>100%
Effect of foreign exchange rate changes and other changes	−1.8	−1.3	−38.5%
Cash and cash equivalents at beginning of year	227.3	220.9	2.9%
Cash and cash equivalents at end of year	**134.4**	**227.3**	**−40.9%**
Time deposits at end of year	65.0	-	-
Total liquidity	199.4	227.3	−12.3%
Net change in total liquidity	**−27.9**	**6.4**	-

Cash flow from operating activities of €164 million

In the 2023 fiscal year, the cash flow from operating activities was €163.8 million (2022: €94.4 million). In addition to the stable operating business, the increase was mainly due to changes in net working capital, which decreased by €41.1 million (2022: increase of €8.0 million). Taxes paid amounting to €13.1 million increased only slightly (2022: €12.5 million). The miscellaneous items also eliminate the result of companies accounted for using the equity method and non-cash earnings components. In the previous year, a payment of €11.0 million was made for settlement in connection with the termination of the lease in Frankfurt-Griesheim, which is included in miscellaneous items.

Cash flow from investing activities

At €87.1 million, capital expenditures in the 2023 fiscal year were significantly higher than the previous year's level (€52.9 million). As a result of the outstanding order situation and continued high demand for specialty graphite components for the semiconductor industry, capital expenditures were made mostly in the expansion of capacities for this product segment. Part of the capital expenditures volume is covered by customer prepayments. Accordingly, the capital expenditures volume was significantly higher than the depreciation of fixed assets of €58.9 million (2022: €60.8 million). Further disclosures on capital expenditure are given in the "Capital expenditure, depreciation and amortization" section.

The cash proceeds from dividends from investments accounted for using the equity method were €10.7 million (2022: €15.7 million) were below the previous year's level due to the planned expansion investments of the BSCCB joint venture. Due to the increasing demand for carbon ceramic brakes, BSCCB is planning to expand its production capacity by approximately 70% at its sites in Meitingen (Germany) and Stezzano (Italy).

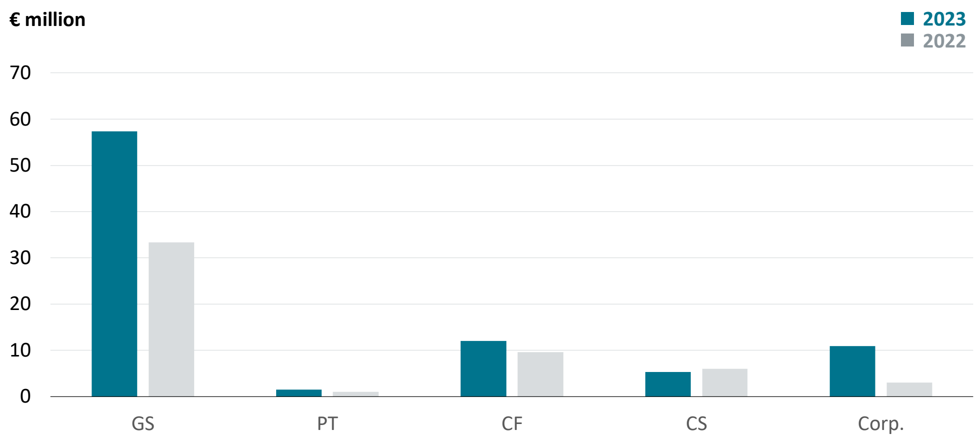
The received purchase price payments for the sold sites in Gardena (USA) and Pune (India) led to a cash inflow of €7.8 million in the 2023 fiscal year. In the previous year, the termination and transfer of the lease to a real estate developer also gave rise to an inflow of €10.0 million, which is included in the 2022 fiscal year and recorded as proceeds from the disposal of intangible assets and property, plant and equipment.

Due to the increase in capital expenditures in the fiscal year, the net cash outflow from investing activities increased substantially from minus €26.6 million in 2022 to minus €68.2 million in 2023.

Capital expenditure, depreciation and amortization

€m	2023	2022
Capital expenditures in intangible assets and property, plant and equipment	–87.1	–52.9
Depreciation/amortization expense	58.9	60.8

Capital expenditure by business unit



The payments for capital expenditures in the 2023 fiscal year mainly related to the following projects:

- Capacity increase of purification systems for the semiconductor industry in St. Marys (USA)
- Construction of a biomass plant for steam production in Lavradio (Portugal)
- Infrastructure investments at the Meitingen site to expand BSCCB production capacities
- Capacity increase for the soft felt plant in Meitingen
- Extension of processing and post-processing capacities for the semiconductor industry in Bonn
- Extension of purification capacity for the semiconductor industry in Shanghai (China)

Details of the capital expenditure can be found in the sections on the respective reporting segments.

Cash flow from financing activities

In the reporting year, the cash flow from financing activities was minus €121.7 million (2022: €60.1 million). The main reasons for this cash outflow are repayments and cash proceeds of financial liabilities of €82.9 million (2022: €29.0 million). This amount comprises the cash outflows from the early repurchase of the 2018/2023 convertible bond with an outstanding nominal amount of €31.6 million, the buyback of the 2019/2024 corporate bond of €240.0 million and the repayment of bank loans in the amount of €5.0 million (2022: €6.2 million). There were cash proceeds from the new 2023/2028 convertible bond €118.7 million and the new term loan facility of €75.0 million.

Interest paid of €25.2 million (2022: €18.6 million) increased compared to the previous year due to higher interest rates, while payments on lease liabilities were below the previous year at €8.5 million (2022: €9.5 million).

Other financing activities included payments of €4.8 million in connection with the refinancing of the newly issued convertible bonds, the extension of the syndicated credit line and term loan facility as well as dividend payments to non-controlling interests of fully consolidated subsidiaries in the amount of €0.4 million (2022: €0.5 million).

Cash and cash equivalents used for the repayment of financial liabilities

Despite the positive free cash flow of €95.6 million, the available cash and cash equivalents decreased to €199.4 million at the end of the 2023 fiscal year (2022: €227.3 million), mainly due to the reduction of debt of €82.9 million and interest and lease payments of €33.7 million.

Contractual payment obligations

The most important contractual payment obligations comprise the repayment of borrowings, purchase obligations and obligations from leasing agreements. At the end of 2023, the obligations from borrowings totaled a nominal €315.2 million (2022: €398.1 million). These essentially consist of the term loan facility of €75.0 million (maturing in 2026), liabilities to banks of €19.6 million, the convertible bond issued in 2022 with a nominal value of €101.9 million, and the convertible bond with a nominal value of €118.7 million issued in 2023. The two convertible bonds mature in September 2027 and September 2028 respectively, at which point they will either be repaid or, if the bondholders exercise their conversion rights, will lead to the creation of up to 24.5 million new bearer shares.

Financial trade obligations, derivative financial instruments, lease liabilities and other financial liabilities amounted to €249.0 million as of December 31, 2023 (2022: €186.3 million). Of this amount, a total of €83.0 million (2022: €31.9 million) had a remaining term of more than one year. Liabilities for income taxes and other liabilities amounted to €26.3 million at the end of 2023 (2022: €38.5 million). Further details can be found in the Notes to the Consolidated Financial Statements under Note 24.

As of the reporting date, obligations for orders in connection with investment projects totaled €55.9 million (2022: €32.3 million). In the 2023 fiscal year, a long-term contract was also concluded for the purchase of a primary material until 2029 with a purchasing volume of €207 million over the entire term.

Net assets

The following table shows selected key figures for the Group's net assets:

Overview of net assets

€m	Dec. 31. 23	Dec. 31, 22
Total assets	1,472.6	1,480.3
Equity attributable to the shareholders of the parent company	605.3	569.3
Equity ratio	41.1%	38.5%
Working Capital	306.0	345.3
Capital Employed	941.8	988.9
Return on capital employed (ROCE $_{\text{EBIT pre}}$)	11.3%	11.3%
Net financial debt	115.8	170.8
Leverage Ratio	0.7	1.0
Gearing	0.19	0.30

Balance sheet structure

€m	Dec. 31. 23	Dec. 31, 22	Change
ASSETS			
Non-current assets	715.6	693.0	3.3%
Current assets	757.0	776.0	−2.4%
Assets held for sale	-	11.3	-
Total assets	**1,472.6**	**1,480.3**	**−0.5%**
EQUITY AND LIABILITIES			
Equity attributable to the shareholders of the parent company	605.3	569.3	6.3%
Non-controlling interests	9.6	9.3	3.2%
Non-current liabilities	583.3	600.8	−2.9%
Current liabilities	274.4	298.1	−8.0%
Liabilities in connection with assets held for sale	-	2.8	-
Total equity and liabilities	**1,472.6**	**1,480.3**	**−0.5%**

Assets

Non-current assets increased slightly in the reporting year to €715.6 million (2022: €693.0 million). Significant changes resulted from the recognition of €30.1 million in deferred tax assets in the US in the 2023 fiscal year, from investments of €28.2 million in excess of depreciation and amortization, as well as from the impairment of CF of €44.7 million recognized in the first half of 2023.

The capital expenditure volume of €87.1 million in the 2023 fiscal year was significantly higher than the level of depreciation on fixed assets €58.9 million, resulting in an increase in fixed assets of €28.2 million. On the other hand, the impairment on property, plant and equipment recognized in the fiscal year reduced fixed assets at CF by €44.7 million and by CS by €4.8 million. Foreign currency translation, particularly due to the weaker US dollar, reduced non-current assets by €8.5 million (2022: increase of €10.2 million). The carrying amount of investments accounted for At-Equity increased by €7.5 million, as the continued positive earnings performance of these companies exceeded the dividend distributions made (2022: increase of €6.2 million).

Current assets decreased by €19.0 million to €757.0 million (2022: €776.0 million) primarily due to the cash and cash equivalents used to repay debt. Adjusted for currency translation effects, current assets decreased by €10.1 million.

The sale of the Pune (India) and Gardena (US) sites, which were reported as assets held for sale in the previous year, reduced the balance sheet total by €11.3 million.

Working Capital

€m	Dec. 31. 23	Dec. 31, 22	Change
Inventories	373.6	324.0	15.3%
Trade receivables and contract assets	150.9	182.4	−17.3%
Trade payables and contract liabilities	−218.5	−161.1	35.6%
Working capital	**306.0**	**345.3**	**−11.4%**

Working capital as disclosed in the balance sheet decreased by 11.4% or €39.3 million to €306.0 million as of December 31, 2023 (December 31, 2022: €345.3 million.). Due to the rising production volume, particularly at GS, but also due to a build-up of inventories at CF based on the temporary down term in demand from the wind industry, inventories in particular decreased substantially by €49.6 million, thus contributing significantly to the increase in working capital. After adjusting for currency effects and changes in the scope of consolidation, inventories rose by €62.6 million. By contrast, trade receivables and contract assets falling significantly by minus €31.5 million or 17.3%; after adjusting for currency effects, the decrease was €45.5 million. The significant increase in customer prepayments in contract liabilities and the increase in trade payables totaling €57.4 million (2022: €45.9 million) contributed significantly to the reduction in net working capital. After adjusting for the non-cash effects of currency translation and changes in the scope of consolidation, as well as the non-cash effects of IFRS 15, the effective decrease in working capital was €41.1 million (2022: increase of €8.0 million).

Cash and cash equivalents fell by €27.9 million or 12.3% to €199.4 million (2022: €227.3 million) due to the repayment of debt. Based on the partially offsetting effects, total assets as of December 31, 2023, remained almost unchanged compared to the previous year's reporting date at €1,472.6 million (2022: € 1,480.3 million).

Equity and liabilities

Equity attributable to shareholders improved by €36.0 million or 6.3% to €605.3 million as of December 31, 2023 (2022: €569.3 million). This increase is essentially based on the positive net result of €41.0 million. Other effects that influenced equity related to the adjustment of pension provisions in Germany and the US of minus €9.3 million after tax (2022 year: increase of €46.1 million), the fair value of the equity component of the newly issued 2023/2028 convertible bond in the amount of €14.9 million (2022: € 12.0 million) and currency effects of minus €11.1 million (2022: €8.8 million), primarily due to the weaker US dollar and the weaker Chinese renminbi and, conversely, the stronger Polish zloty.

Overall, these effects improved the equity ratio (excluding non-controlling interests) to 41.1% at the end of the reporting year (2022: 38.5%).

	Equity attributable to the shareholders of the parent company	Non-controlling interests	Total equity
December 31, 2022	**569.3**	**9.3**	**578.6**
Dividends	**--**	**−0.4**	**−0.4**
Equity component of the convertible bonds	14.3	--	14.3
Net result for the year	41.0	0.7	41.7
Other comprehensive income	−19.3		−19.3
Comprehensive income	**21.7**	**0.7**	**22.4**
December 31, 2023	**605.3**	**9.6**	**614.9**

Non-current liabilities decreased by €17.5 million to €583.3 million (2022: €600.8 million). A decrease in non-current liabilities of €62.7 million was mainly due to the refinancing of debt. This was offset by a €46.8 million increase in contract liabilities, in particular from received customer prepayments.

The pension provisions, which are included in non-current liabilities, increased slightly from €202.3 million at the end of 2022 to €206.1 million as of December 31, 2023, or by 1.9%. This was mainly due to the adjustment of the discount rates to reflect the lower long-term interest environment. The rate used for Germany was minus 0.5 percentage points to 3.3%, while that for the US was minus 0.2 percentage points to 4.9%. The overall reduction was €0.8 million. In addition, there was a decrease in pension provisions of €4.4 million from one-off payments for two former Board of Management members (see Remuneration Report).

The repayment of the corporate bond of €240.0 million was made from the successful placement of the convertible bond in June 2023 for €118.7 million, a drawdown of €75 million on the term loan facility granted by the company's core banks in March 2023 as well as available cash and cash equivalents.

Customer prepayments of €64.2 million received for the long-term financing of the order backlog for the semiconductor industry in the GS business unit were disclosed as non-current contract liabilities in the 2023 fiscal year (2022: €17.4 million).

Current liabilities fell to €274.4 million at the end of the 2023 fiscal year (2022: €298.1 million). The €10.6 million increase in trade payables and contract liabilities was offset in particular by the repayment of the 2018/2023 convertible bond in the amount of €31.6 million. In addition, current provisions increased by €4.3 million, mainly because of the reclassification of €7.4 million from provisions for LTI bonus payments previously reported as non-current, which will be paid out in 2024.

The current portion of trade payables and contract liabilities rose to €154.3 million, a substantial rise of €10.6 million relative to the previous year (2022: €143.7 million). After adjusting for currency effects of €2.2 million, the effective increase in trade payables and contract liabilities was €12.8 million.

Net financial debt

€m	Dec. 31. 23	Dec. 31, 22	Change
Carrying amount of current and non-current financial liabilities	282.8	377.4	−25.1%
Remaining imputed interest for the convertible bond	27.8	17.0	63.5%
Accrued refinancing cost	4.6	3.7	24.3%
Total financial debt (nominal amount)	**315.2**	**398.1**	**−20.8%**
Liquidity	**199.4**	**227.3**	**−12.3%**
Net financial debt	**115.8**	**170.8**	**−32.2%**

At the close of 2023, financial debt totaled €315.2 million, with this figure made up as follows:

- Convertible bond 2023/2028 of €118.7 million
- Convertible bond 2022/2027 of €101.9 million
- Term loan facility of €75.0 million
- Liabilities to banks of €19.6 million

For the reconciliation to the carrying amount of €282.8 million shown in the balance sheet, the net remaining imputed interest of the outstanding convertible bonds of minus €27.8 million (2022: minus €17.0 million) and the total refinancing costs of minus €4.6 million (2022: minus €3.7 million) must be taken into account. Financial debt are split by maturity in the consolidated balance sheet and reported accordingly under the items “Interest-bearing loans” and “Current portion of interest-bearing loans”. Changes in financial debt are explained in the section "Cash flow from financing activities".

Net financial debt decreased significantly by €55.0 million (-32.2%) to €115.8 million as of December 31, 2023. This reduction was due to the positive free cash flow of €95.6 million, less the interest paid of €25.2 million and lease payments of €8.5 million. Together with the €82.9 million net cash used from the repayment of debt and the other payments for financing activities of €5.1 million, as well as exchange rate differences of minus €1.8 million, this led to a decrease in cash and cash equivalents of €27.9 million to €199.4 million (2022 €227.3 million).

The leverage ratio as the ratio of net financial debt to adjusted EBITDA was 0.7 as of December 31, 2023 (2022: 1.0) and has once again improved significantly, in particular due to the lower net financial debt. Gearing (net financial debt / equity attributable to shareholders of the parent company) was 0.19 at December 31, 2023 (2022: 0.30) and thus also reduced substantially.

Return on capital employed (ROCE)

€m	2023	2022
Capital Employed		
Intangible Assets incl. Goodwill	35.4	37.9
Property, plant and equipment	532.2	545.0
Investments accounted for At-Equity	68.2	60.7
Working capital	306.0	345.3
Capital employed as of 31.12. of the financial year	**941.8**	**988.9**
Capital employed as of 31.12. of the prior year	**988.9**	**996.6**
Average capital employed	**965.4**	**992.8**
ROCE $_{\text{EBIT pre}}$	11.3%	11.3%

The return on capital employed (ROCE $_{\text{EBIT adjusted}}$) remained unchanged from the previous year at 11.3% (2022: 11.3%). This resulted in a slight reduction in the financial performance, in particular due to the reduction in average capital employed.

Assets not recognized and off-balance sheet financing instruments

Various assets of SGL Carbon are not recorded on the balance sheet. Due to the application of IFRS 16, all material leased or rented assets have been recognized on the balance sheet since 2019. Since IFRS 16 was introduced, assets financed off-balance-sheet comprise leases for IT equipment, motor vehicles, photovoltaic systems and other property, plant and equipment that are of low value or are used only for a short period.

The volumes of these non-recognized assets and off-balance-sheet financing instruments have no material impact on the presentation of the net assets, financial position and results of operations. Further details can be found in this regard in the Notes to the Consolidated Financial Statements under Note 25.

Unrecognized intangible assets also include the enterprise’s brand name and that of SGL Carbon’s products. In addition, SGL Carbon’s long-standing supplier and customer relationships are of considerable value. On the one hand, they stabilize the course of business and make the enterprise less dependent on short-term market fluctuations. And on the other hand, this intensive cooperation enables joint research and development projects in which the expertise and development capacities of the companies involved are bundled.

Funding status of pension obligations

As of December 31, 2023, the Group’s retirement benefit obligations amounted to €339.8 million compared to €325.9 million at the end of 2022. The funding status of the retirement benefit obligations (i.e., the difference between the present value of the retirement benefit obligations and the fair value of plan assets) was minus €203.6 million as of December 31, 2023, compared to minus €199.7 million as of December 31, 2022. The change was essentially due to the decrease in the pension interest rates in Germany and the US and the offsetting increase in fund assets due to higher market values. The actuarial losses from defined benefit plans recognized in equity in retained earnings decreased by €9.3 million after taxes. The level of fund assets to finance pension obligations increased significantly from €128.2 million at the end of the previous year to €137.9 million as of December 31, 2023, due to higher market values, despite the weaker US dollar exchange rate.

Further information on the impact on the balance sheet and income statement, and on pensions and similar obligations can be found in Note 22 in the Notes to the Consolidated Financial Statements.

Overall assessment of the 2023 fiscal year by the Board of Management

A year of stabilization and investing in the future

At a global political level and in terms of social issues, 2023 was a year of crises and related economic consequences. Geopolitical tensions and the impacts of climate change are intensifying. Economically, we are seeing an environment of high inflation, rising interest rates and unsatisfactory economic development in many parts of the world. SGL Carbon has performed well in this environment. We achieved our Group targets despite the fact that demand from one of our most important sales markets, the wind industry, came to an almost complete standstill in 2023. By contrast, our other three business units did better than expected. Revenue and earnings in Graphite Solutions, Process Technology and Composite Solutions are at a historically high level.

Overall, at €1,089.1 million, Group revenue in 2023 was slightly below the previous year's level (minus 4.1%) while adjusted EBITDA, a key operating figure, was at €168.4 million, in the middle of our expected range (€160 to 180 million).

SGL Carbon has undergone a transformation in recent years. Not only are we in a better financial position, but our business model has also become more resilient. Through innovative, cutting-edge carbon-based products, we aim to help shape the future in industries that are important for the challenges which lie ahead, such as climate change and digitalization.

We used the year 2023 to stabilize our business model and make significant investments in additional future growth. We invested a total of €87.1 million, of which around xx% was used towards expanding production capacity for specialty graphite products for the semiconductor industry. We will continue to invest in this area in the coming year and further expand our global capacities.

In the long term, with our innovative and customer-oriented products we intend to focus on the markets that will significantly reflect future trends such as climate-friendly mobility, renewable forms of energy and digitization. We focus on market segments that demonstrate future growth opportunities and offer attractive margin profiles, and where we already have an established position. We have defined clear profitability targets and are continuously evaluating operational and strategic options for the product areas that do not meet these criteria.

An important goal in the past two years and thus also in the reporting year was to stabilize our balance sheet structure and, in particular, complete our refinancing. As a result, we further increased the company's equity ratio from 38.5% to 41.1%. Our net debt once again decreased significantly, from €170.8 million to €115.8 million. This means that our leverage ratio was 0.7 (2022: 1.0), compared to 3.1 at the start of the transformation at the end of 2020. Our financial stability was also further strengthened by the early refinancing of our corporate bond from 2019, which will mature in 2024. The successful issue of a further convertible bond with a volume of €118.7 million and a term until 2028 also demonstrates the confidence that banks and capital market participants have regained regarding SGL Carbon.

Objectives achieved for the fiscal year

At the end of March 2023, we expected sales revenue to be at the previous year's level (€1,135.9 million) and adjusted EBITDA to fall within a range of €160 – 180 million. This reflected the economic and geopolitical conditions at the start of 2023 as well as valid forecasts for our market segments. At the start of the reporting year, demand for carbon fibers in the wind industry collapsed almost completely and subsequently failed to recover over the course of the fiscal year. In mid-2023, this resulted in an impairment of assets in the Carbon Fibers business unit. The extremely positive course of business in the Group's other three business units – Graphite Solutions, Process Technology and Composite Solutions – made up for most of the revenue and earnings lost in the CF business unit. At a Group level, we thus achieved our goals for the 2023 fiscal year. In the context of the deteriorating economic conditions in 2023, SGL Carbon can look back on a satisfactory fiscal year.

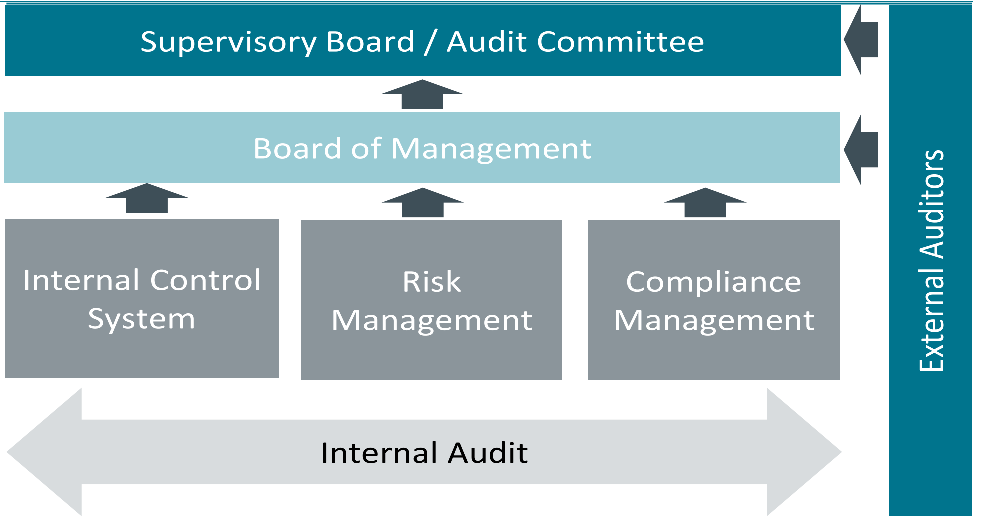
	Actual data for fiscal year 2022	Outlook for 2023 as published in the Annual Report 2022	Actual data for fiscal year 2023
Sales revenue	€1,135.9 million	At prior year level	1,089.1
EBITDA pre	€172.8 million	€160 - 180 million	€168.4 million
ROCE (EBIT pre)	11.3%	10% - 12%	11.3%
Free Cash flow	€67.8 million	At prior year level	€95.6 million

SGL Carbon’s business development in the 2023 fiscal year has demonstrated the resilience of our business model and our ability to respond rapidly and efficiently to changes in our operating conditions. This is partly a reflection of our broad-based product portfolio and the four different business units to which our business activities are allocated. For the 2024 fiscal year, we aim to focus on our growth markets and further expand our production capacities here, in order to further improve our profitability in subsequent years.

Opportunities and Risks Report

Structural fundamentals

Corporate governance organization of SGL Carbon



In addition to the internal control system and compliance management, risk management is an integral component of corporate governance at SGL Carbon. The internal control system is designed to mitigate risks in the company's operating processes by implementing appropriate controls. The risk management system is used to identify and assess risks and opportunities and to respond appropriately to ensure that the company's objectives are achieved. The compliance management system deals with processes and measures to ensure compliance with legal requirements and internal policies. Both the risk management system and the internal control system of SGL Carbon are based on the currently valid COSO framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The compliance management system follows the international standard ISO 37301:2021.

The involvement of the Internal Audit department as well as external auditors ensures process-independent monitoring of the governance systems.

The Board of Management of SGL Carbon is responsible for implementing suitable systems and monitoring them. Furthermore, the Supervisory Board monitors the effectiveness of the systems through the Audit Committee.

Risk management system

Risk management strategy

SGL Carbon’s risk strategy is aimed at ensuring the company’s long-term continued existence as a going concern and attaining the planned financial and non-financial targets and outlooks. In addition to the early identification of risks, opportunities for profitable growth should also be systematically recognized and used. Our aim is to avoid or limit risks through suitable control measures. Where possible and economically viable, risks should be transferred to third parties, for example by taking out insurance policies. Only viable risks are taken that are proportionate to the expected opportunities. One of the most important priorities is that the company has sufficient liquidity reserves available at all times.

The principles of risk management are anchored in a group-wide guideline and ensure the uniform implementation of the risk strategy. Therefore, the requirements for the early risk detection system in accordance with the German Stock Corporation Act [Aktiengesetz] have also been complied with and satisfied. The management of non-financial risks is also integrated into the risk management system.

Risk management organization

At Group level, the chief financial officer is responsible for the adequacy and effectiveness of the risk management system. Organizationally, the Board of Management is supported by Group Controlling, which coordinates the risk management process at Group level. Group Controlling defines principles, processes, reporting channels and responsibilities, ensures that the group-wide risk management guidelines are up-to-date and continuously develops the risk management system. The primary responsibility for opportunities and risks lies with the heads of the business areas and central departments.

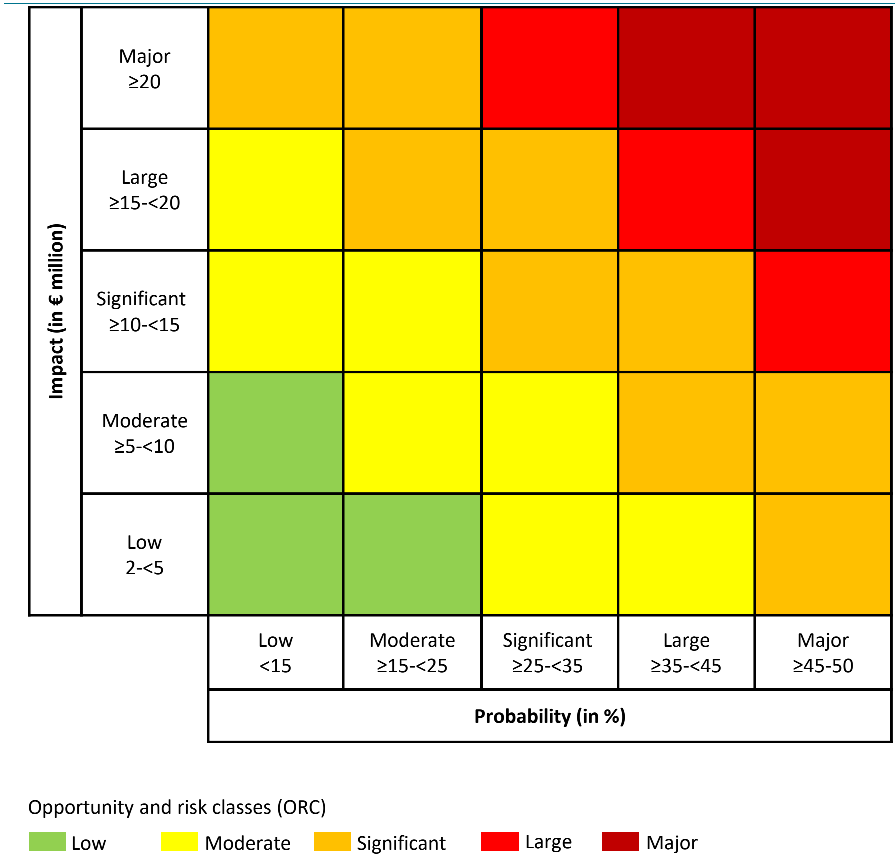
Risk management processes

The risk officers carry out a comprehensive risk inventory once a year as part of budget planning. This also includes risks from non-financial matters such as Environmental, Social and Governance (ESG) issues. Individual risks exceeding defined value limits are systematically recognized and measured and then uniformly aggregated. The risk inventory covers the entire planning horizon of five years. Opportunities, on the other hand, are only recognized for the current year. Measures to counteract identified risks are also specified. The risk assessment is then updated on a quarterly basis. Material new risks or risks that threaten the company as a going concern are immediately reported to the Board of Management or Group Controlling via ad hoc reporting, regardless of the defined reporting intervals.

Opportunities and risks are measured uniformly according to the specifications of the Group's risk management. We consider risks to be any negative deviation from the budgeted results and opportunities to be positive deviations beyond the budgeted results.

The identified opportunities and risks are assessed based on the dimensions of impact and probability of occurrence. In addition to cash flow, EBIT is also targeted. The measurement always follows a net analysis after taking countermeasures into account. The classification is based on opportunity and risk classes (ORC) based on impact and probability. The classification is shown in the following matrix.

Classification matrix



Group Controlling reports the aggregated risks to the entire Board of Management on a quarterly basis. The Supervisory Board is also regularly informed at meetings about the material risks within the Group. Non-financial risks are also included as part of risk aggregation in the overall risk position and compared with the risk-bearing capacity.

Risk management monitoring

The risk management system is monitored by the Supervisory Board via the Audit Committee. In 2022, a voluntary external review of the risk management system was also performed in accordance with Audit Standard 981 of the Institute of Public Auditors in Germany (IDW PS 981). In 2023, Internal Audit conducted a review of the adequacy and effectiveness of the risk management system in a specific audit. The adequacy and effectiveness of the risk management system were confirmed in both audits. Moreover, improvement measures were initiated to implement findings from the audit. SGL intends for its ICS to be reviewed by external auditors or Internal Audit every year on an alternating basis.

Internal control system

Internal control system structure

The internal control system (ICS) includes the principles, processes and measures to ensure the effectiveness and profitability of business activities and the correctness of accounting in compliance with the relevant legal regulations. This also includes the protection of assets by preventing and uncovering damage to assets. Non-financial reporting was not yet a formal component of the global ICS in the past fiscal year. An expansion of the ICS to include non-financial reporting is planned.

The establishment, maintenance and further development of the ICS is carried out by the central ICS department on behalf of the chief financial officer. The control design is determined on the basis of a risk assessment carried out at least once a year. Responsibility for the implementation and documentation of the control lies with the respective process owner. Risk and control documentation is based on uniform Group standards. Local ICS responsibles have been nominated in all of the main companies to act as local contacts for all ICS-related issues and support those responsible for processes and controls in their ICS tasks. The central IT department acts as a point of contact for all IT issues and designs the IT controls.

Accounting process and consolidation processes

The accounting processes and the preparation of the consolidated financial statements are the responsibility of the Group Accounting & Tax department, which reports directly to the chief financial officer.

The consolidated financial statements are based on the IFRS Accounting Manual which regulates the group-wide uniform application of the accounting and measurement principles in accordance with the International Financial Reporting Standards (IFRS) as adopted by the EU. Changes in accounting regulations are continuously monitored, their impact assessed and relevant changes in the financial organization communicated.

The consolidated financial statements are prepared using SAP-based consolidation software based on a uniform chart of accounts. Operational accounting is mainly carried out in three regional shared service centers. The responsibility for the completeness and correctness of the separate financial statements lies with the local finance managers in the respective countries or companies. The separate financial statement data is automatically loaded into the consolidation system via an interface. The data is validated by rules established in the system. In addition, Group Accounting checks the data for plausibility and correctness of content. Statements of completeness are obtained from the main companies on a quarterly basis to ensure the complete recognition of items subject to accounting and disclosure requirements. The principles of segregation of duties are consistently implemented in the accounting-relevant processes.

A Significant Contracts Policy ensures that material contracts are always reviewed by Group Accounting regarding their impact on the balance sheet. Furthermore, external specialists are consulted in the case of special topics.

Internal control system monitoring

The Audit Committee is regularly informed about the status of the ICS as part of its monitoring tasks. The effectiveness of the ICS is monitored via a continuous control self-assessment by the central ICS department. Internal Audit also includes selected internal controls in its audits and provides suggestions for improvement.

In 2022, a voluntary external review of the accounting-related ICS was performed in accordance with Audit Standard 982 of the Institute of Public Auditors in Germany (IDW PS 982). In 2023, Internal Audit conducted a review of the adequacy and effectiveness of the ICS in a specific audit.

The adequacy, implementation and effectiveness of the ICS were confirmed in both audits. Nonetheless, improvement measures were initiated based on the recommendations from the audit. SGL intends for its ICS to be reviewed by external auditors or Internal Audit every year on an alternating basis.

The ICS has its limitations, regardless of how carefully the systems are designed. In particular, subjective judgments, faulty controls or other circumstances can limit the effectiveness and reliability of the ICS, so even the group-wide application of the systems used can only provide sufficient certainty with regard to the correct, complete and timely recognition of items in the consolidated financial statements.

Compliance management system (unaudited)

The compliance management system of SGL Carbon aims to reduce the risk of legal violations. The Chief Compliance Officer of the Group is responsible for the compliance management system. After the first external certification of SGL Carbon SE's compliance management system pursuant to the requirements of the ISO 19600:2016 guideline in 2020 and subsequent surveillance audits in 2021 and 2022, the compliance management system was recertified to the now-certifiable ISO 37301:2021 standard in the previous fiscal year. The existing anti-bribery management system was also certified to the ISO 37001:2016 standard. The compliance management system and anti-bribery management system were certified as being lastingly effective. Detailed information on the SGL compliance management system and the anti-bribery management system can be found in the Corporate Governance Declaration, the Corporate Governance and Compliance Report and in the separate Non-Financial Group Report (CSR Report) (all unaudited) that are part of this Annual Report.

Overall statement by the Board of Management on the governance systems (unaudited)

No facts have come to our attention that speak against the adequacy and effectiveness of the risk management system, the internal control system and the compliance management system in all material respects.

Material opportunity and risk areas

Risk factors that impact the business activities of SGL Carbon are reflected in the opportunities and risk areas presented below. If these areas also contain opportunities, they are explicitly stated. The risks stated here can occur individually or cumulatively. Additional risks that are not yet known, or risks that are currently classified as not material could also impair SGL Carbon's business activities. Unless explicitly stated, the risks described below relate to all of the Group's business units.

The opportunities and risks are divided into the following categories:

- Opportunities and risks from external framework conditions
- Opportunities and risks from operational activities
- Financial opportunities and risks
- Legal opportunities and risks
- Non-financial opportunities and risks.

The table shows the classification of SGL Carbon's risks into the defined opportunity and risk classes and therefore reflects the possible impact on the development of the Group's net assets, financial position and results of operations, should they occur. The statements relate to the 2024 fiscal year.

Category / Risk	Opportunity and risk class (ORC)
Opportunities and risks from external framework conditions	
Opportunities and risks of future macroeconomic development	Large
Opportunities and risks of price and volume development	Large
Opportunities and risks from operational activities	
Risks in production	Major
Opportunities and risks from the graphite anode material business	Large
Opportunities and risks of the raw material markets	Significant
Risks from cyberattacks and information technology	Significant
Opportunities and risks in the energy markets	Moderate
Financial opportunities and risks	
Impairment risks	Large
Financial position risks	Significant
Opportunities and risks from exchange rate fluctuations	Moderate
Risks from pension plans	Low
Legal opportunities and risks	
Legal risks and risks from divestments	Significant
Tax risks	Moderate
Non-financial opportunities and risks	
Environmental and climate risks	Large
Social risks	Significant
Governance risks	Moderate

Changes compared with the previous year resulted in particular in the area of opportunities and risks from price trends for energy and raw materials. These opportunities and risks are no longer classified as serious or high for the Group in the 2024 fiscal year. This modified assessment is largely the result of the current significant drop in the cost of energy and raw materials. However, the prices are still higher than they were before the Covid-19 pandemic and the increases resulting from the war in Ukraine. Production risks have risen considerably due to the increase in production capacity to serve strong demand for graphite components for the silicon carbide (SiC) based semiconductor industry.

Opportunities and risks from external framework conditions

Opportunities and risks of future macroeconomic development (ORC: large)
The EU economy has lost momentum amid persistent inflation and high energy prices compared to the global average. The economic outlook for 2024 remains subject to a high degree of uncertainty. The threat of financial risks such as inflation and persistently high interest rates has not abated, nor has the threat of an economic demand slump up to and including a recession. There is also the risk of possible supply chain interruptions due to conflicts or the impacts of climate change. The labor shortage remains a risk factor as well and could limit potential growth at our sites.

Inflation is expected to decline further in 2024, according to the European Central Bank's (ECB) January 2024 outlook. Inflation is running at 2.7% in early 2024, which is still above the ECB's long-term target of 2.0%. The possible adjustment of global financial markets to the new high interest rate environment remains an important risk factor. The different factors may have a negative impact on our net assets, financial position and financial performance. On the contrary, if the overall economic trend turns out better than expected, this may also create opportunities for our business.

Opportunities and risks of price and volume development (ORC: large)
A recession in Europe, our largest sales market, as well as unsatisfying cyclical trends in other regions that we serve may limit our business prospects in individual markets and thus pose sales/volume risks. We contain sales risks resulting from dependency on individual markets and industries by rigorously aligning our businesses with industries that support the trends of the future. Our diversified product and customer structures help insulate us from regional crises in our sales markets.

In the Graphite Solutions (GS) business unit, bottlenecks in the supply of raw materials for graphite components for the semiconductor industry could have a negative impact on unit sales and thus volumes. In the Carbon Fibers (CF) business unit, price and volume risks in particular remain high, as they did in 2023, due to ongoing weak demand in the wind energy market.

We may not be able to pass on increases in production costs to our customers due to stubborn international competition in some markets. Moreover, we might be forced to cut our prices if the competitive pressure increases.

Opportunities and risks from operational activities

Risks in production (ORC: major)
In order to be able to realize the profitability-oriented growth that SGL Carbon has set for itself, there is a risk that maintenance expenses could be higher than planned due to the temporary high plant utilization close to the capacity limit to ensure the availability of plants and avoid business interruptions.

Furthermore, delays in ramping up production or in customer qualification can lead to a delay in the realization of revenues.

The capital expenditure volume will amount up to €150 million in 2024. It will primarily go toward meeting strong customer demand in the silicon carbide-based semiconductor market. The increase in capital expenditure is to be primarily funded through advance payments received from customers under long-term supply contracts. Risks include, without limitation, that the intended capacity expansion cannot be executed as planned due to factors such as a lack of engineering capacity or technical problems when commissioning new equipment.

Measures were taken to reduce cash outflows in the CF business unit due to the ongoing crisis in the wind energy market. Delays in implementing these measures could have negative impacts on the financial position. In particular, there is a risk that the inventory reduction or capacity adjustment cannot be executed as planned.

A production standstill at one or more locations could lead to delivery problems with regard to quantity and quality, which may also result in compensation payments to customers. In addition, supply bottlenecks in SGL Carbon's supply chains can imply that avoiding production standstills could only be achieved with higher transport costs compared to the budget assumptions.

SGL Carbon also strives to optimize working capital relative to revenues. If this does not succeed as planned, this could negatively impact in particular the future free cash flow.

Opportunities and risks from the graphite anode material business (ORC: large)
In order to ensure profitable growth in SGL Carbon's business segments, we regularly review all strategic options for business units and products whose performance does not meet our criteria and/or whose long-term earnings potential appears limited to us. We are currently looking into all possible options for the graphite anode material business based on our performance criteria. This results in opportunities and risks.

Opportunities and risks of the raw material markets (ORC: significant)
We counteract the volatility on the raw material market with structured procurement concepts and the conclusion of medium- and long-term framework agreements. Appropriate strategic concepts are developed with the main suppliers on the basis of long-standing business relationships. An increase in raw material and transport costs compared to the budget can have a negative impact on the future net assets, financial position and results of operations. A lack of availability of individual raw materials can also have a negative impact on the economic development of SGL Carbon. Supply chain interruptions may also result from geopolitical discord, armed conflict and the consequences of climate change.

In the GS business unit in particular, a bottleneck in the supply of raw materials in the important graphite component product segment for the silicon carbide-based semiconductor industry would have a significant impact.

The CF business unit is characterized by price fluctuations for the raw material acrylonitrile. This results in opportunities and risks. SGL Carbon strives to reduce these risks through a targeted procurement strategy that includes alternative suppliers as well as the targeted utilization of price opportunities. However, political developments in important procurement regions in particular can have a negative impact on the supply security of individual raw materials that are difficult to substitute.

Risks from cyberattacks and information technology (ORC: significant)
The general cyber threat situation initially intensified after the outbreak of the Ukraine war but then calmed down somewhat in the course of 2023. The threat posed by malware (ransomware) in particular has reduced in intensity due to global technical countermeasures. Nonetheless, a hacker attack on our IT systems could result in the loss of sensitive data and production downtimes. This could have a significant adverse effect on

our ability to deliver and thus on our financial position and financial performance and require specialized technical and organizational countermeasures.

In order to take adequate account of the existing IT risks – ransomware attacks in particular – SGL Carbon operates a risk-oriented information security management system (ISMS) based on the globally recognized ISO 27001:2022 standard and a dedicated IT risk management system pursuant to ISO 31000:2018 as part of a Group-wide initiative. In 2023, SGL Carbon once again successfully continued the certification of specific areas of the company pursuant to the automotive safety standard TISAX and plans to expand this as per customer requirements. In addition, regular awareness-raising measures take place for our employees by simulating phishing attacks as well as regular mandatory training courses. We have also taken out cyber insurance to cover damages caused by cybercrime. We have secured all sensitive administrative IT accounts using multifactor authentication and a sophisticated security incident monitoring system. We have also implemented full-coverage protection of all end-user devices with a threat detection and automatic response software program that minimizes the aforementioned risks.

Data protection violations can result in heavy fines as well as loss of reputation. In addition to the European Union's General Data Protection Regulation, there are numerous national data protection regulations. To ensure compliance with them, we have defined relevant provisions in organizational instructions and provide regular training for our employees.

Opportunities and risks in the energy markets (ORC: moderate)
We counter the risk of rising and volatile energy prices primarily by concluding long-term energy contracts. In addition, the installation of the biomass energy generation plant in Lavradio (Portugal) gives us greater flexibility.

We continuously monitor the situation on the energy markets. We discuss current developments in quarterly energy committee meetings and compare them to our projected requirements. Countermeasures include a targeted energy procurement strategy to stabilize costs in the medium term. We have also implemented energy price clauses in numerous customer contracts to protect our margin in the event of further increases in energy prices.

Financial opportunities and risks

Impairment risks (ORC: large)
If the business units do not develop as planned and/or the interest rate used for the impairment test increases, there is a risk that assets may have to be written down.

Financial position risks (ORC: significant)
SGL Carbon is adequately funded for the coming fiscal year following the extension and modification of the syndicated credit line (maturing 6/2026), the redemption of the corporate bond in full, the issuance of a new convertible bond (maturing 6/2028) and the drawing of the term loan facility (maturing 3/2026). Unexpected significant negative impacts on cash flow may arise if the business units do not perform as expected.

In order to avoid risks associated with fraud in payment transactions, SGL Carbon relies on a consistent four-eyes principle and strictly separates the initial posting, approval and payment process. The employees involved in the process are regularly trained using examples such as “CFO fraud,” as a potential occurrence of fraud could cause major damage to the company.

Opportunities and risks from exchange rate fluctuations (ORC: moderate)
The key financial figures are influenced by exchange rate fluctuations from SGL Carbon’s global business activities. Potential impacts of exchange rate fluctuations can be reduced by natural hedging within the Group. The transaction-related foreign currency risk is reduced by optimizing operational cash inflows and outflows in a foreign currency. The resulting foreign currency exposure is hedged using derivative financial instruments if the risks exceed certain materiality limits. Risk minimization is the overriding principle for all activities in connection with currency derivatives. In addition to the functional separation of trade, control and processing, also in this area regular risk analyses are carried out.

Besides transaction risks, there are translation risks arising from the translation of financial statement items denominated in local currency into the Group currency, the Euro. Translation risks are not hedged.

Risks from pension plans (ORC: low)
Retirement benefit obligations are subject to a multitude of valuation parameters. The amount of pension provisions is affected by changes in interest rates, longevity trends,

salary increases and inflation rates in particular as well as the probability of acceptance of the capital option. Besides fluctuations in equity, this can lead to changes in pension plan expenses. Financial risks, as well as opportunities, also arise from the management of pension plan assets. If future rates of return are lower than expected, budget deficits may arise and additional payments into pension plans may be required.

Legal opportunities and risks

Legal risks and risks from divestments (ORC: significant)
In the event of legal disputes, SGL Carbon recognizes provisions based on the probability of occurrence and external legal opinions. Actual utilization may deviate from our own estimates and impact the consolidated net result.

Due to the international orientation of its business activity, SGL Carbon is also confronted with a wide variety of legal uncertainties. These include difficulties in enforcing contracts and outstanding claims in foreign legal systems, compliance with foreign trade law, international export and import restrictions and technology transfer law in various countries, as well as difficulties in global enforcement of patent protection for the Group’s own products.

In the case of divested businesses, it is common for the seller to be liable for transactions that took place before the date of disposal. This harbors the risk of possible burdens on the net result for businesses that have already been disposed of.

Tax risks (ORC: moderate)
SGL Carbon operates worldwide and is therefore subject to a wide range of national tax laws and regulations. Changes in tax law or in the taxation practices of individual countries in which SGL Carbon does business can lead to higher tax expenses and higher tax payments. We counter this with an ongoing analysis and evaluation of the tax environment. Although we assume that tax issues are always presented in accordance with the law, it cannot be ruled out that the tax authorities will come to different conclusions in individual cases. If corresponding risks are foreseeable, current tax liabilities for uncertain tax positions are recognized based on estimates. If the actual results deviate from the original estimate, this can impact the tax expense in the period in which the matter is finally decided.

Non-financial opportunities and risks

SGL Carbon reviewed and updated the ESG issues of relevance to the business model in 2023. We based this process on the European Sustainability Reporting Standards (ESRS) (EU No. 2013/34/EU amended by (EU) 2022/2464). The double materiality assessment includes an analysis of the impact of the SGL business model on the environment and society (inside-out perspective) as well as the identification and financial assessment of risks and opportunities (outside-in perspective). Risks and opportunities are assessed based on SGL Carbon’s internal risk management approach in order to classify ESG risks and opportunities within the company’s risk management system. The assessment considered the financial impact and likelihood of occurrence for all identified risks and opportunities.

In addition, the key ESG issues identified using the ESRS standards were checked against the risk and opportunity domains from the risk management system to avoid redundancies. For example, all the risks/opportunities from human resources, which in previous years were classified as financial risks/opportunities, were classified as non-financial risks and opportunities. See the separate non-financial group report (CSR Report) for details on the materiality assessment and more information on SGL Carbon’s ESG goals and ambitions.

Environmental and climate risks (ORC: large)

As an energy-intensive industrial company, we need natural resources and create emissions in the manufacturing of our products. In recent years, our stakeholders have significantly increased their expectations regarding reductions in our CO_2 emissions as well as resource conservation and reuse.

Failure to meet our targets for limiting CO_2 emissions could result in a loss of customer orders, restricted access to financing instruments, and a loss of attractiveness as an employer. In addition, price increases in CO_2 certificates may have an impact on energy costs, such as gas prices, and thus may negatively impact SGL Carbon's earnings position. Stricter regulatory requirements could force us to make significantly higher capital expenditure in plant and machinery to meet regulatory targets. SGL Carbon’s performance could be affected by the regulation of material and raw material recycling or by an increase in water and waste management rates.

We have set ourselves clear objectives for reducing our own CO_2 emissions, for which we are increasingly relying on the use of renewable energies. In 2023, for example, we began installing a biomass plant at our facility in Lavradio (Portugal) to flexibly replace the previous natural gas-fueled plant. The biomass plant will run on wooden pellets sourced from within a 250 kilometer radius. Further projects are currently being planned or implemented. We are also monitoring regulatory developments relating to the emissions trading system (ETS).

The development of environmentally and/or climate friendly products and solutions harbors potential growth opportunities for SGL Carbon. Prospects for growth also exist in markets that SGL already serves and that support climate and environmental protection, such as wind energy, climate-friendly transportation or the semiconductor industry.

Social risks (ORC: significant)

Being a technology-based company, SGL Carbon cares deeply about its workforce’s health and safety. The rate of workplace accidents and missed days is part of the management pay structure. All SGL Carbon sites held a global Occupational Safety Day for the second time in 2023.

Employees are a key pillar of the business success of SGL Carbon. The competition for highly qualified specialists and managers is intense and continues to grow, especially against the background of the demographic developments in many countries relevant to SGL Carbon. In order to achieve the strategic corporate objectives, SGL Carbon must be able to attract highly qualified personnel, further educate them in a targeted manner and retain them over the long term. To ensure our attractiveness as an employer, we have relied on measures such as the development of our SGL performance culture based on our five SGL values, regular employee surveys, flexible working time models and performance-related compensation since 2022. A talent program was initiated for the targeted promotion of highly qualified emerging talents. In addition, important key positions were identified and selected measures defined to retain critical knowledge carriers as part of our Group-wide succession planning process. To continuously cover the need for qualified experts, we use a vast array of recruiting tools such as active sourcing and target-group specific job platforms.

Governance risks (ORC: moderate)

To prevent violations of legal regulations, compliance training courses are held regularly to raise employees' awareness of possible risks. Corresponding rules of conduct are also defined in compliance guidelines. Possible violations can be reported via an anonymous whistleblower system and are consistently pursued by the central compliance department.

Risks in the supply chain exist with regard to violations of human rights or environmental standards by our suppliers. To prevent this, we require our suppliers to comply with our Business Partner Code of Conduct. Furthermore, we use an online tool to regularly survey and evaluate all relevant suppliers regarding compliance with social and environmental standards.

To prevent infringements of antitrust law, we have established an antitrust policy and a corresponding group-wide training concept which is implemented via our online learning platform.

SGL Carbon fosters and requires transparent and lawful execution of all company business. Violations can result in substantial financial penalties. SGL Carbon's principles for combating bribery and corruption are laid down in the SGL Anti-Corruption Program, which is applicable throughout the Group. The rules are set out in a specific guideline, as well as in the Code of Conduct. SGL’s anti-bribery management system was externally certified to the ISO 37001:2016 standard in the previous fiscal year.

Overall assessment by the Board of Management

We expect the global growth rate to remain below average in 2024. While the global economy was able to avoid a recession in 2023, there is a threat of a prolonged period of low growth from 2024 onwards. The underlying pricing pressure is weaker but not completely eliminated. Persistent political uncertainty around the world weighs heavily on the outlook as well. Inflation decreased in most regions, providing leeway for central banks to start cutting interest rates. The impact of the Ukraine war will likely continue to diminish in 2024. A further escalation of the conflicts in the Middle East poses the risk of disrupting energy markets and increasing inflationary pressure worldwide.

Material risks to our bottom line include the possibility that the intended expansion of our production capacity in the GS business unit to serve the strong demand for graphite components in the semiconductor market will be unable to proceed as planned.

There are material risks in the CF business unit as well. A delay in the measures aimed at minimizing the effect of the crisis in the wind energy market could have a negative impact on earnings.

Risks as well as environmental and climate-related opportunities are also material. The failure to achieve targets and higher costs could adversely affect SGL Carbon's revenue and earnings. Opportunities emerge from the continued focus on sustainable growth markets such as semiconductors, renewable energies and e-mobility. Based on the information currently available, we believe that no significant individual risks exist – neither now nor in the foreseeable future – that could jeopardize the company as a going concern. Even the cumulative consideration of the individual risks does not jeopardize the continued existence of SGL Carbon as a going concern. We see good opportunities to further expand our leading market positions thanks to our regionally diversified positioning. Ultimately, however, residual risks (net risks) remain in all entrepreneurial activities and cannot be ruled out even by comprehensive risk management.

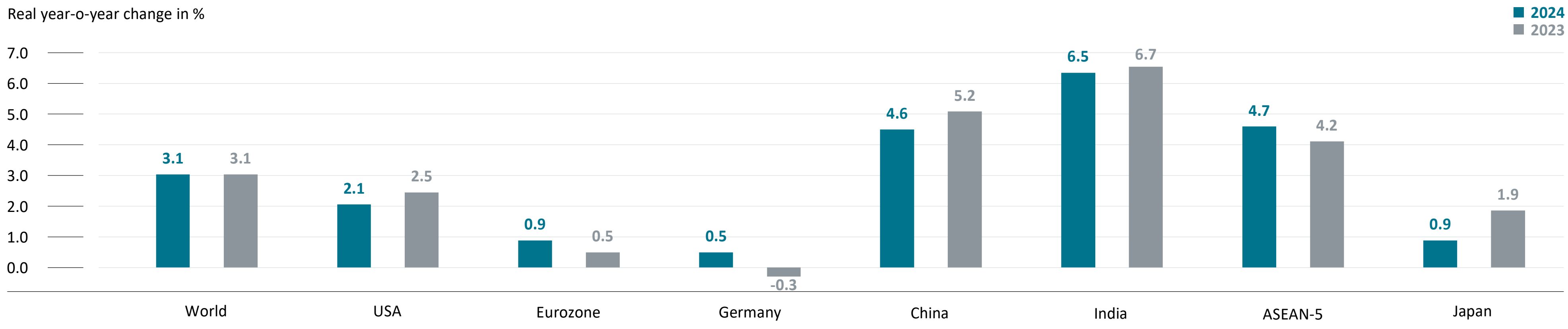
Outlook

Overall economic trend

According to the latest World Economic Outlook issued by the International Monetary Fund (IMF) in January 2024, world economic growth is expected to remain unchanged from the previous year at 3.1% in 2024. The recovery of the world economy from the COVID-19 pandemic, Russia's invasion of Ukraine and the increased cost of living continue to impact world economic development. Accordingly, forecast global growth for 2024 remains below the historical average of 3.8% for the period from 2000-2019. The projected stagnation in growth in 2024 reflects the central bank's increased key interest rates to combat inflation, a withdrawal of fiscal support in light of the high level of debt weighing on economic activity, and low productivity growth. While this allowed the global economy to avoid a recession in 2023, the worst-case scenario, there is a threat of a prolonged period of low growth.

Inflation is declining faster than expected in most regions from its peak in 2022, since the problems on the supply side and the restrictive monetary policy seem to be overcome. The IMF global total inflation is expected to drop back from an estimated 6.8% in 2023 (annual average) to 5.8% in 2024, which is still considerably above the pre-pandemic level of around 3.5% (2017-19). This means that around 80% of the world's economies are likely to see lower total and core inflation on average in 2024. In several major economies, the downward revision of the forecast inflation path combined with a slight improvement in economic activity points to a softer landing than previously expected. The short-term challenge for policymakers is to successfully manage the eventual decline in inflation to the target level by aligning monetary policy with underlying inflation dynamics and, where wage and price pressures are easing, pursuing a less restrictive strategy. At the same time, high interest rates to combat inflation and a withdrawal of fiscal support in light of the high level of debt are expected to weigh on growth in 2024. The European Central Bank (ECB) expects inflation in the eurozone to fall from 5.4% in the previous year to 2.7% in 2024.

Forecast gross domestic product in 2024 (2023) at a glance



Source: IMF, World Economic Outlook (Update) January 2024.

Economic growth in emerging markets and developing countries supports global growth

A decline in growth is predicted by the IMF for the developed economies, from 1.6% in 2023 to 1.5% in 2024. The slight upward correction of 0.1 percentage points for 2024 compared to the October 2023 forecast reflects stronger than expected US growth, which is partially offset by weaker growth in the eurozone.

A decline in growth is predicted by the IMF for the United States, from 2.5% in 2023 to 2.1% in 2024, with the delayed effects of tightening of monetary policy, the gradual tightening of fiscal policy and the softening of labor markets slowing down overall demand.

According to IMF projections, growth in the Eurozone is projected to recover from its low rate of an estimated 0.5% in 2023, which is due to the relatively high burden of the war in Ukraine, to 0.9% in 2024. Stronger household consumption is expected to drive the recovery as the impact of the energy price shock fades and inflation falls, supporting real income growth. In the group of major eurozone economies, Germany is likely to trail with 0.5 % growth in 2024. Germany was particularly hard hit by high energy prices, tightening monetary policy and the weaker-than-expected recovery in demand from China. Structural challenges, including a lack of investments, labor shortages and dependence on energy-intensive industries are likely to impede the upswing in the outlook period, according to an analysis by the United Nations (UN).

The IMF expects growth of 4.1% in 2024 for the emerging and developing countries, unchanged from the previous year. In the emerging and developing countries of Asia, growth is expected to decrease slightly from an estimated 5.4% in 2023 to 5.2% in 2024. Growth is supported by an increase in the forecast for the Chinese economy compared to previous assumptions. China is projected to grow by 4.6% in 2024, which reflects, among other things, increased government spending on measures to protect against natural disasters. Growth in India is projected to remain strong at 6.5% in 2024.

Overall assessment of the Group’s anticipated performance by Company management

The world economy continues to face the challenges of comparatively high interest rates and poor growth prospects. Overall, we expect raw material and energy prices to fall slightly, although they will remain volatile during the year. Tighter financing conditions, weak trade growth and a decrease in business and consumer confidence are also weighing on the economic outlook. In addition, heightened geopolitical tensions are contributing to increased uncertainty about the economic outlook. This could result in sales revenue and earnings trends being subject to corresponding fluctuations.

The Group forecast and the forecast for the business units are based on the above expectations and assumptions regarding general economic and industry developments that we expect for our respective markets. In our planning, we have also assumed that the geopolitical pressures will not continue to worsen.

Based on our assumption of a slight decline in raw materials and energy prices, we expect costs to decrease slightly in 2024, although this will be offset by wage increases. Our aim is to compensate for these factors through improved productivity and changes in the product mix. We consider the price level to be stable at the Group level. The anticipated performance of some parts of the business units also depends on major projects from our customers and the general recovery of the most important markets. This includes, in particular, the development and significant upswing in wind energy. Any development that deviates from the plan could have either positive or negative effects. Further information can be found in the Opportunities and Risks Report.

In the 2023 fiscal year, SGL Carbon was primarily focused on stabilizing and investing in the future, for example by completing our refinancing combined with a reduction in debt and an extended maturity structure or stabilizing our Carbon Fibers business unit as a result of the slump in demand from the wind industry. An example of this is investments in the expansion of production capacities for high-margin products with growth prospects such as specialty graphite components for the semiconductor industry or in sustainable projects such as the biomass plant in Lavradio.

Against the backdrop of a continued weak economic development in virtually all economic regions, particularly in our home market of Germany, and an almost constant cost structure due to slightly lower raw material and energy costs in conjunction with higher wages, we assume that revenue and earnings will remain more or less steady in the 2024 fiscal year.

Group performance

SGL Carbon's key financial performance indicators are sales revenue and adjusted EBITDA. These two KPIs are supplemented by free cash flow and return on capital employed (ROCE), which we regard as a long-term indicator of performance. The following overview shows the outlook for 2024 for the Group's key performance indicators:

Group financial targets

€m	Actual 2023	Outlook 2024
Sales revenue	1,089.1	at prior year level
EBITDA pre	168.4	160 - 170
Return on capital employed (ROCE $_{EBIT}$)	11.3%	10% – 11%
Free cash flow	95.6	significantly below prior year level

[1] "Slight" indicates a variation of up to 10%; "significant" indicates a variation of more than 10%

We expect varying developments in our major sales markets in 2024. We assume that the most important sales revenue and earnings driver will be demand for specialty graphite components for the semiconductor industry. In contrast, all indicators currently suggest that demand for carbon fibers for the wind industry will remain weak in 2024 and that our Carbon Fibers business unit will therefore continue to record operating losses. Following the temporary slump in demand for carbon fibers for the wind industry, the business unit's sales revenue and earnings decreased significantly during the 2023 fiscal year. Even if demand picks up, the company assumes that Carbon Fibers will require additional resources to remain competitive in the international market environment and to take advantage of market opportunities. With this in mind, we also announced on February 23, 2024, that we would review all strategic options for Carbon Fibers. These also include a possible partial or complete sale of the business unit.

For all other market segments, we anticipate stable to slightly declining demand overall due to the economic conditions described above. Our forecast still implies that the price level in our sales markets will remain stable.

Our revenue forecast for the fiscal year considers all four business units, since we are only at the beginning of evaluating the strategic options for CF. In line with the above assumptions, we therefore expect Group revenue to remain at the previous year's level (2023: €1,089.1 million).

Assuming the general conditions remain the same, we expect raw material and energy prices to decrease slightly in 2024, which will be offset by higher personnel costs. We therefore expect factor costs to remain virtually unchanged compared to the previous year. However, it should be noted that the CF business unit will continue to be burdened by underutilization of production capacity and thus high idle capacity costs in 2024. The forecast operating loss of CF will have a negative impact on the adjusted EBITDA of the SGL Carbon Group.

Based on the assumptions and developments set out above, we expect adjusted EBITDA of between €160 and €170 million for the 2024 fiscal year considering all four business units. After depreciation and amortization, an adjusted EBIT of between €100 and €110 million is forecast. If the review of all strategic options for the CF business unit results in a sale, the forecast adjusted EBITDA in 2024 would be between €180 and €190 million.

We also assume that full-year free cash flow for 2024 will be significantly below the previous year's level. Because of the increasing investments and the resulting higher capital commitment, ROCE is expected to be between 10% and 11%. For net financial debt, another supplementary key performance indicator, we expect a slight increase in 2024 compared to the previous year (2023: €115.8 million).

Business trend in the reporting segments

Segment	KPI	Actual 2023	Outlook 2024
GS	Sales revenue	565.7	slight improvement
	EBITDA pre	134.0	significant improvement
PT	Sales revenue	127.9	constant
	EBITDA pre	22.4	slight decline
CF	Sales revenue	224.9	constant
	EBITDA pre	7.2	significant decline
CS	Sales revenue	153.9	significant decline
	EBITDA pre	22.2	slight decline
Corporate	EBITDA pre	–17.4	significant decline

[1] "Slight" indicates a variation of up to 10%; "significant" indicates a variation of more than 10%

Our four business units supply customers in a variety of market segments. Therefore, the sales revenue and earnings development of the individual business units may vary. We expect business to continue to develop positively for the Graphite Solutions (GS) business unit in 2024, supported by the continued high demand for graphite components for the semiconductor industry, especially silicon carbide-based semiconductors. We also expect further revenue and earnings growth from this industry, also based on an expansion of our production capacities in this product area. Due to the weak and in some cases uncertain expectations for our automotive market segments, especially electromobility, as well as industrial applications, we expect demand from these markets to remain stable or decline slightly. We are forecasting a slight increase in revenue for the GS business unit in 2024 considering the expected various trends in our focus markets. However, due to the initiated capacity expansion for specialty graphite components, together with a shift in the product mix toward higher-margin products, we expect a significant improvement in adjusted EBITDA compared to 2023.

The Process Technology (PT) business unit recorded an increase in revenue of 20.3% in the 2023 fiscal year and even more than doubled its adjusted EBITDA (2022: €9.9 million; 2023: €22.4 million). Even though PT has opened up new markets, it is still highly dependent on the chemical industry, for which we expect relatively subdued development in 2024. Nevertheless, we expect PT’s course of business to remain solid and revenue to remain almost stable compared to the previous year. Due to increasing price pressure, we expect a slight decline in adjusted EBITDA.

As previously stated, due to the ongoing weak demand from the wind energy market, we do not expect the Carbon Fibers (CF) business unit to recover in 2024. In addition, there are possible cyclically-driven demand barriers from other market segments. In this respect, we assume that CF’s sales revenue will be nearly stable in 2024. According to revenue performance and the negative impact of idle capacity costs due to underutilization of production capacity, we expect a significant decline in adjusted EBITDA for CF despite continued positive earnings from our joint ventures.

The automotive industry is by far the most important market segment for the Composite Solutions (CS) business unit. Due to lower-than-expected sales figures for electric vehicles and the expiration of a supply contract with a US manufacturer, we anticipate significantly lower revenue for CS than in the previous year. However, as a result of the change in the product mix, we expect adjusted EBITDA for 2024 to be only slightly below the previous year’s level.

Revenue for the non-operating Corporate business unit comprises rental income and revenue from services supplied to third parties, as well as material and personnel charges for the central administrative functions. While the 2023 fiscal year was positively impacted by the lower variable remuneration, we expect adjusted EBITDA for the Corporate segment to be around minus €20 million in 2024.

Investments in future growth, positive free cash flow

In the 2023 fiscal year, we invested a total of €87.1 million, of which around two thirds was used towards expanding production capacity for specialty graphite products for the semiconductor industry. Accordingly, the investment volume was significantly higher than depreciation and amortization (2023: €58.9 million) and, in addition our positive operating cash flow, is fueled by advance payments from our semiconductor customers to secure future production capacities.

Due to the continued attractive growth opportunities for specialty graphite components for the semiconductor industry, we will continue to invest in the expansion of our global production capacities in the 2024 fiscal year. We are planning further investments of up to €150 million in 2024 using funds from our own cash flow and prepayments received from our customers.

Based on a positive operating cash flow and a reduction in working capital, we aim to achieve a positive free cash flow again in the 2024 fiscal year. However, due to the significantly higher planned investments for the further expansion of our GS production capacities, we expect free cash flow to be well below the previous year’s figure.

Dividend development

While the positive sales revenue and earnings development of the operating subsidiaries will impact the parent company SGL Carbon SE, in particular due to the accumulated losses totaling €601.2 million at SGL Carbon SE, it will not be possible to distribute a dividend. With further growth, our company will operate more profitably on a sustainable basis. Only then will it be possible to distribute a dividend.

Disclosures pursuant to Sections 289a and 315a HGB

The reporting required under Sections 289a and 315a HGB is covered in the following overview:

Composition of issued capital

As of December 31, 2023, the company had share capital of €313,194,183.68, divided into 122,341,478 no-par value shares, with a pro rata amount of €2.56 per share of the share capital (see Note 21).

Restrictions affecting voting rights or the transfer of shares

The members of the company’s Board of Management are obligated to hold a fixed number of shares in SGL Carbon SE for the duration of their tenure on the Board; the Chair of the Board of Management in the amount of their fixed annual salary and the Chief Financial Officer in the amount of 85% of their fixed annual salary. There are no other restrictions on voting rights or the transfer of shares. However, mandatory legal requirements, in particular under Section 71b AktG, which excludes voting rights for the company’s own shares, as well as the exclusion of voting rights in cases of conflicts of interest pursuant to Section 136 (1) AktG, are unaffected by this.

Direct or indirect participation in the capital

The company has been notified of a direct or indirect interest in the capital that exceeds 10% of the voting rights as follows: (i) by SKion GmbH, Bad Homburg, Germany, through notifications of voting rights or notifications of proprietary transactions with a participation of approximately 28.55% at the end of 2023, and (ii) by Bayerische Motoren Werke Aktiengesellschaft (BMW AG), Munich, most recently by notification in connection with the capital increase in 2016 with a participation of approximately 18.26% at that time. The holding of voting rights of SKion GmbH is attributable to Dr. h.c. Susanne Klatten, Germany, who thereby indirectly holds approximately 28.55% of the voting rights in SGL Carbon SE as of the end of 2023.

Holders of shares with special rights

No shares with special rights that grant controlling authority have been issued.

Type of voting rights control in the case of employee shareholdings

There are no voting rights controls for employees who hold shares in the company’s share capital.

Statutory provisions and provisions of the Articles of Incorporation relating to the appointment and removal of members of the Board of Management and amendments to the Articles of Incorporation

The statutory provisions in Article 39 of the SE Regulation, Section 16 of the German SE Implementation Act [SE Ausführungsgesetz] and Sections 84, 85 AktG and Section 6 of the company’s Articles of Incorporation apply to the appointment and dismissal of members of the Board of Management. In accordance with this, the members of the Board of Management are appointed and dismissed by the Supervisory Board. The members of the Board of Management are appointed for a maximum period of five years. Reappointments are permitted. The Supervisory Board may dismiss a member of the Board of Management if there is good cause for their dismissal. Good cause is, in particular, a gross violation of the duties of the Board of Management and a vote of no confidence by the Annual General Meeting. The Supervisory Board decides on appointments and dismissals at its own due discretion.

The Annual General Meeting makes decisions on changes to the Articles of Incorporation. Pursuant to Section 17 (4) Articles of Incorporation, such resolutions require a simple majority of the votes cast for the resolution, provided that at least half of the share capital is represented; this does not apply if a higher majority, including a higher capital majority, is required by law.

Authority of the Management Board to issue and buy back shares

The Board of Management is authorized, with the approval of the Supervisory Board, to issue new shares from authorized or conditional capital (see Article 3 Articles of Incorporation and also the Notes note 21).

Material agreements that are conditional on a change of control as a result of a takeover bid

As of December 31, 2023, the company had issued two convertible bonds (nominal amount €101.9 million) that will mature in 2027 and 2028 (nominal amount €118.7 million). Both convertible bonds entitle the bondholders in the event of a change of control to demand repayment of any outstanding bonds at par value (plus interest accrued up to that point) on a date to be determined by the company, which shall be no less than 40 and no more than 60 calendar days after the publication of the change of control. In addition, it is also possible to convert the bonds into shares, in which case an improved conversion ratio for the bondholder is applied, which is staggered in relation to the remaining term of the relevant convertible bond. A change of control is deemed to occur for both convertible bonds if one or more persons acquire control over the Company, where control means direct or indirect, legal and/or economic ownership of shares (within the meaning of Sections 29 (2), 30 WpÜG) which together grant more than 30% of the voting shares in the company. For both convertible bonds, the improved conversion ratio will also apply in the case of a public takeover offer if, at the end of the acceptance period, the acceptance rate of the offer exceeds 30% of voting shares, any minimum acceptance threshold for the offer in excess of this amount has also been reached, and no further offer conditions remain unfulfilled (other than conditions that can legally be met after the acceptance period has expired).

In the event of a change of control, the lenders of the company's syndicated loan (with a total of €175 million, of which €75 million is drawn at the end of 2023) have the right to terminate their respective participation in the syndicated loan. A change of control exists when one or more persons (by means of acting in concert pursuant to Section 2(5) WpÜG) acquire control over the company, whereby control means (i) the right to directly or indirectly exercise more than 30% of the voting rights of the company at a Annual General Meeting, (ii) the right to appoint all or the majority of the Executive Board, (iii) to issue binding instructions to the Board of Management regarding the operational and financial strategy of the company, or (iv) the direct or indirect ownership of more than 50% of the company’s share capital. However, it does not constitute a change of control if control is acquired by Dr. h.c. Susanne Klatten, BWM AG or Volkswagen AG or companies controlled by them.

Furthermore, the agreement regarding the joint venture Brembo SGL Carbon Ceramic Brakes S.p.A., in which SGL Carbon SE holds 50% of the share capital, provides for the right of the other party to tender its shares in this joint venture in the event of a change of control on one side (put option) or to acquire the shares of the party subject to a change of control in the joint venture (call option). A change of control exists (i) if a competitor of one of the parties to the joint venture directly or indirectly acquires 25% or more of the voting rights in the parties to the joint venture or SGL Carbon SE or (ii) if another third party directly or indirectly acquires 50% or more of the voting rights in one of the parties to the joint venture or SGL Carbon SE.

Compensation agreements with the Board of Management and employees in the event of a takeover bid

No compensation agreements have been concluded with the Board of Management and employees in the event of a takeover bid.

Corporate Governance Declaration, Corporate Governance and Compliance Report (unaudited)

Declaration of conformity with the German Corporate Governance Code

The Board of Management and the Supervisory Board of a listed European corporation (Societas Europaea) with its registered office in Germany are required by Art. 9 (1) (c) (ii) SE Regulation in conjunction with Section 161 German Stock Corporation Act to declare at least once a year whether the German Corporate Governance Code (GCGC) has been and is being complied with. In addition, reasons must be specified as to which recommendations of the code have not been or are not being applied. Since 2002, the Board of Management and Supervisory Board of SGL Carbon SE have regularly issued and published declarations of compliance. Each declaration of conformity will be made available to the public on the company's website (www.sglcarbon.com, under "Company/Corporate Governance") for a period of five years. The most recent declaration of conformity was issued and published in November 2023:

The Board of Management and Supervisory Board of SGL Carbon SE declare that:

SGL Carbon SE has been in compliance with the recommendations of the Corporate Governance Code ("Code") issued by the "Government Commission on the German Corporate Governance Code" (Regierungskommission Deutscher Corporate Governance Kodex) in the version dated April 28, 2022 as published by the Federal Ministry of Justice in the official notice section of the German Federal Gazette (published on June 27, 2022) since the issuance of the Company´s last Declaration of Compliance in May 2023 and will continue to comply with the Code in the future, with the exception of the following deviations:

- • With regard to recommendation B.3 of the Code, according to which first-time appointments of Management Board members shall be for a period of not more than three years. As part of its Management Board realignment in 2020, the Company appointed two new Board of Management members for a term of five years each. These decisions were made in the interest of a stable management structure with continuity for the future challenges and are also considered appropriate by the Supervisory Board in view of the qualifications of the candidates.
- • With regard to recommendation C. 10 sentence 1 of the Code, according to which the Chair of the Supervisory Board and the Chair of the committee that addresses Management Board remuneration shall be independent of the Company and the Management Board. Prof. Dr. Richter holds the Chair of the Supervisory Board and of the Company`s Personnel Committee and is in addition managing director of SKion GmbH, a shareholder with a material interest in SGL Carbon SE. The current occupancy of the Supervisory Board Chair and the Personnel Committee Chair of the Company is considered appropriate by the Company, as Prof. Dr. Richter is viewed as particularly suitable for both positions and, in addition, the Company believes that the existing majority of independent Supervisory Board members within the group of shareholder representatives in the Supervisory Board ensure a sufficient balance.

The Corporate Governance Principles of SGL Carbon SE furthermore satisfy a majority of the non-obligatory suggestions of the German Corporate Governance Code.

Wiesbaden, November 30, 2023

For the Supervisory Board
Prof. Dr. Frank Richter (Chairman of the Supervisory Board of SGL Carbon SE), signatory for the Supervisory Board

For the Executive Board
Dr. Torsten Derr (Chairman of the Board of Management of SGL Carbon SE), signatory for the Board of Management

Composition and procedures of the Board of Management

The governance of SGL Carbon SE as a listed European company (SE) with its registered office in Germany is largely determined by Council Regulation EC No. 2157/2001 of October 8, 2001, the Statute of a European Company (SE Regulation), Germany's SE Implementation Act, the Agreement on the Involvement of Employees in SGL Carbon SE as well as the German Stock Corporation Act (AktG), the suggestions and recommendations of the German Corporate Governance Code and the Articles of Association of SGL Carbon SE.

SGL Carbon SE is subject to the dualistic system as per Art. 38 of the SE Regulation in conjunction with Section 5 of SGL Carbon SE's Articles of Association. The dualistic system is characterized by a separation of personnel between the management body (Board of Management) as the executive and management body and the supervisory body (Supervisory Board) as the monitoring body. The Board of Management and Supervisory Board of SGL Carbon SE work closely together for the benefit of the enterprise. Their shared goal is the sustained growth of the value of the company.

The Articles of Association specify that the Board of Management of SGL Carbon SE consist of several members; this number is determined by the Supervisory Board. As of December 31, 2023, the Board of Management consisted of two members and therefore no Board of Management committees were formed.

The Board of Management is responsible for managing SGL Carbon SE and the SGL Carbon Group in the interest of the company. The principle of overall responsibility applies, that is, the members of the Board of Management bear joint responsibility for management of the business; however, each member of the Board of Management is assigned responsibility for specific areas. More detailed information on the individual members of the Board of Management and their areas of responsibility can be found on the company's website (www.sglcarbon.com under "Company/About us/Board of Management"). Certain matters determined by the full Board of Management shall both be dealt with by the full Board of Management and require its approval. The Chairperson of the Board of Management coordinates the work of the members of the Board of Management.

The Board of Management develops the corporate and Group strategy and ensures its implementation in consultation with the Supervisory Board. In addition to long-term economic targets, corporate strategy and planning also take appropriate account of environmental and social objectives. The duties of the Board of Management also include managing and monitoring the operating activities of the Company and establishment and supervision of an appropriate and effective control and risk management system. The Board of Management ensures compliance with legal provisions, official regulations and internal policies, and it works to ensure that these rules and regulations are also complied with by Group companies. The Board of Management prepares the company's interim financial reports, the financial statements of SGL Carbon SE, the consolidated financial statements, the management reports of SGL Carbon SE and the SGL Carbon Group and the separate non-financial report for the SGL Carbon Group.

The Board of Management informs the Supervisory Board regularly, promptly and comprehensively in regard to all issues relevant to the company and the Group, particularly including strategy, planning, business development, the risk situation, risk management and compliance. In this context, the Board of Management addresses instances in which the business situation deviates from the established plans and targets. When important events of material significance for the company occur, the Board of Management shall inform the Chairperson of the Supervisory Board without delay, and the Chairperson of the Supervisory Board shall subsequently inform the Supervisory Board and convene a Supervisory Board meeting if required.

The composition and procedures of the Supervisory Board and its committees

Supervisory Board

According to Section 8 (1) of the Articles of Association, the Supervisory Board of SGL Carbon SE consists of eight members, with half of them being shareholder representatives and the other half employee representatives. The shareholder members are appointed by the Annual General Meeting of SGL Carbon SE, and the employee representatives are appointed by the SE Works Council in accordance with the agreement of the company with the employees on co-determination in the company. The Supervisory Board elects a Chairperson of the Supervisory Board from among its members and a Vice-Chairperson from among the shareholder representatives and employee representatives. If resolutions are to be adopted by a simple majority, the Chairperson of the Supervisory Board will cast the tie-breaking vote in the event of a tie, and if the Chairperson does not participate in the adoption of the resolution, the Vice-Chairperson who has been appointed to the

Supervisory Board as a shareholder representative will cast the tie-breaking vote. In addition, the Chairperson of the Supervisory Board coordinates the work of the Supervisory Board and represents the interests of the Supervisory Board to the outside world.

The Supervisory Board advises and monitors the Management Board in managing the company; this also includes advising and monitoring on sustainability issues. The Supervisory Board appoints and dismisses the members of the company's Board of Management, makes decisions regarding the remuneration system for Board of Management members and sets the individual remuneration for each member of the Board of Management. The remuneration system for the Board of Management and its approval by the Annual General Meeting is available on the company's website (www.sglcarbon.com, and available there under "Company/Corporate Governance"). At regular intervals, the Supervisory Board obtains reports from the Board of Management on the strategy, corporate planning, sales performance, profitability, business development, sustainability issues and the situation of the company, as well as on the internal control system, the risk management system and the compliance management system. It is directly involved in decisions that are of fundamental importance to SGL Carbon SE and the Group; these include the launch of new sectors or the discontinuation of existing ones and the issuance of bonds. Section 11 of the Articles of Association of SGL Carbon SE contains a catalog of transactions for which the Board of Management requires the approval of the Supervisory Board (the Articles of Association of SGL Carbon SE are available on the company's website (www.sglcarbon.com, under "Company/Corporate Governance")). Furthermore, under certain circumstances it is required under law that the Supervisory Board or the Audit Committee approve transactions with related parties in advance. The Supervisory Board is ultimately responsible for auditing the annual financial statements and management report of SGL Carbon SE, the consolidated financial statements and management report and the proposal for appropriation of unappropriated profits. The activities of the Supervisory Board in the 2023 fiscal year are explained in the "Report of the Supervisory Board").

The Supervisory Board has adopted rules of procedure which govern in particular the convening and preparation of the Supervisory Board's meetings and the passing of resolutions in addition to its duties and responsibilities. The Rules of Procedure are available on the company's website (www.sglcarbon.com, under "Company/Corporate Governance").

Targets of the Supervisory Board regarding its composition

In accordance with the requirements of the German Corporate Governance Code, the Supervisory Board adopted targets for its composition and drafted a skill set profile for the body as a whole. In accordance with the targets it has set for itself, the Supervisory Board is to have a composition that ensures that its membership as a whole possesses the knowledge, skills and professional experience required to properly perform the duties of the Supervisory Board. The age limit for members of the Supervisory Board is 72. As a rule, a member of the Supervisory Board shall also no longer be proposed as a candidate for the Supervisory Board once they have completed their third term of office on the Supervisory Board. This rule does not apply to terms of office based on a court appointment to the Supervisory Board. If a Supervisory Board member holds a material stake in the company within the meaning of the German Corporate Governance Code, controls a material shareholder of the company or acts as a representative of a material shareholder, there is a fundamental exception to the above-mentioned rule and no time restriction applies in this case. Each member of the Supervisory Board also ensures that they have sufficient time to perform their duties.

All members of the Supervisory Board must be able to properly perform their duties. To perform its duties properly, at least two Supervisory Board members should have expert knowledge in the field of accounting or auditing, including sustainability reporting (Financial Expert); currently, as proven by their education and career, this is the case for Ms. Neumann and Mr. Denoke. As a trained auditor and former partner of an auditing company, Ms. Neumann has the necessary knowledge and experience in the field of auditing as well as in the area of accounting. Mr. Denoke, as a long-standing CFO of a large listed company, also has the necessary knowledge and experience in the application of accounting principles and internal control and risk management systems, along with knowledge and experience in the field of auditing. In addition, at least one member of the Supervisory Board must have considerable professional experience and industrial expertise in the SGL Carbon Group's sectors or key customer industries. Furthermore, each of the following areas should have at least one member who has extensive professional experience in the specified area: corporate management and corporate strategy, compliance and risk management, innovation expertise (including digitization), executive development and human resources. In addition, members of the Supervisory Board should have knowledge of sustainability issues important to the company. The composition of the Supervisory Board should also reflect the international activities of the company; at least one member of the Supervisory Board should have special international knowledge and experience due to their national origin, education or professional activity.

The Supervisory Board shall always include a sufficient number of independent members. That is why at least half of the members of the Supervisory Board on the shareholder side should be independent; this is currently the case, as the Supervisory Board considers Ms. Neumann, Mr. Denoke and Mr. Eichler to be independent representatives, meaning that more than half of the shareholder representatives are independent. Regarding Mr. Eichler, who has been on the Supervisory Board since 2010, there were no circumstances in recent years in which there was a concrete conflict of interest in his activities on the Supervisory Board. In addition, there is no indication for the concern that his activities on the Supervisory Board could have been affected by the many years of working with the Supervisory Board members due to switching Supervisory Board positions within the company on various occasions during his tenure.

With regard to the appropriate participation of women on the Supervisory Board of the company, the legislation relevant for SGL Carbon SE pursuant to Sections 17 (2) SEAG and 96 (2) AktG also requires that the Supervisory Board of the company be composed of at least 30% women and at least 30% men.

The aforementioned targets of the Supervisory Board with regard to its composition and the skill set profile for the entire body are taken into account in proposals for the appointment of new Supervisory Board members, and efforts are made to fill gaps in the skill set profile. In its current composition, the positions on the Supervisory Board are fully filled in terms of the members' expertise, diversity and independence according to the targets and skill set profile of the Supervisory Board.

	Prof. Dr. Richter	Denoke	Neumann	Eichler	Stett-berger	Bam-berger	Hem-leb	Züllig-hofen
Group Accounting		X	X					
SGL business units / customer industries		X	X	X	X	X	X	X
Strategy / Corporate Governance / M&A	X	X	X	X				
Compliance / Internal Audit and Risk Management		X	X	X				
Innovation / Digitization	X	X		X				
Human Resources / Management Development	X	X	X	X	X	X	X	X
Sustainability themes	X		X	X				
International business experience	X	X	X	X				

More detailed information on the individual members of the Supervisory Board, including the length of their membership on the board, can be found on the company's website (www.sglcarbon.com, under "Company/About us/Supervisory Board").

Rules in the event of possible conflicts of interest

It is necessary for Supervisory Board members to disclose conflicts of interest to the Chairperson of the Supervisory Board. This includes both specific conflicts of interest that arise as well as potential conflicts of interest that are sufficiently probable. If a Supervisory Board member has conflicts of interest that are material and not merely temporary, this will lead to termination of the mandate. The Supervisory Board or the Audit Committee approves transactions with related parties in accordance with the statutory requirements. In addition, the Audit Committee examines whether there were any indications of improper influence in transactions between SGL Carbon Group companies and Supervisory Board members, persons or companies related to them or shareholders with a stake in SGL Carbon SE of more than 5% of the voting rights. In the reporting period, no conflicts of interest were reported by members of the Supervisory Board or Board of Management that would be necessary to disclose to the Supervisory Board without delay. In the reporting period, there were also no consultancy or other service agreements between the members of the Supervisory Board and the company. Relationships to related parties are presented in Note 26 to the consolidated financial statements.

Committees of the Supervisory Board

The Supervisory Board has a total of three standing committees, which operate in accordance with the requirements of the German Corporate Governance Code, the German Stock Corporation Act, the company's Articles of Association and the Rules of Procedure for the Supervisory Board. These committees are:

Personnel Committee

The Personnel Committee, chaired by Prof. Dr. Richter, advises the Supervisory Board primarily on the arrangements that regulate the legal relationship between the company and its current and former Board of Management members. It reviews the remuneration of the Board of Management members and submits proposals to the full Supervisory Board for a final decision. The committee also prepares personnel decisions by the Supervisory Board by drafting proposals for the appointment of new and the dismissal of incumbent members of the Board of Management. Other members of the committee are Ms. Neumann and Mr. Stettberger.

Nominating Committee

The task of the Nomination Committee is to prepare proposals for the Annual General Meeting election of shareholder representatives to the Supervisory Board. The committee chaired by Prof. Dr. Richter includes all shareholder representatives of the Supervisory Board, that is, in addition to Prof. Dr. Richter, Ms. Neumann, Mr. Denoke and Mr. Eichler.

Audit Committee

The Audit Committee consists of four members. The Chairperson of the Audit Committee is Mr. Denoke. The other members are Ms. Neumann, Mr. Hemleb and Mr. Züllighofen. The committee deals with matters that include audit of the accounting, monitoring of the accounting process, risk management, compliance and the internal control and audit system, as well as audit of the Group's transactions with related parties. In particular, it is responsible for the preliminary audit of the annual financial statements of SGL Carbon SE and SGL Carbon, the management report and Group management report (including the separate non-financial report) and the proposal for appropriation of earnings.

Another of the committee's areas of responsibility is the company's relationship with the auditor. In this context, the committee primarily prepares the Supervisory Board's proposal to the Annual General Meeting on the election of the auditor. It is of key importance here to ensure that the auditor is both qualified and independent. The committee also determines audit priorities with the auditor, discusses the audit strategy and audit planning with the auditor, agrees the audit fee, prepares the issuance of the audit engagement and reviews in advance the commissioning of non-audit services to be performed by the auditor.

In addition to these three permanent committees, the Supervisory Board may form temporary project-related committees as needed.

Efficiency review of the Supervisory Board

The Supervisory Board regularly assesses the effectiveness and efficiency of its work and the work of its committees. It conducted this self-assessment for the last time in late 2022. In an extensive questionnaire, the members of the Supervisory Board were able to provide their assessment of current practice and suggestions for optimization in regard to a variety of topics such as cooperation on the Supervisory Board and with the Board of Management, as well as on the work in the committees. The results were evaluated by a notary, processed anonymously and then discussed by the Supervisory Board in March 2023. The members of the Supervisory Board rated the cooperation within the Supervisory Board as positive overall.

Governance practices

SGL Carbon Code of Conduct

The SGL Carbon Code of Conduct underscores the commitment of SGL Carbon and all employees to responsible, lawful conduct and reflects the Group's shared values, its corporate culture and the type of behavior it aspires to in its business. A key factor in SGL Carbon's lasting success as a company is its responsible and appropriate treatment of all parties with whom the company has business relationships, including employees, customers, shareholders, governmental authorities and the public. The Code of Conduct is intended to play a key role in building and maintaining trust among all stakeholders. It underscores the commitment of the company and its employees to compliance with applicable laws and providing employees with guidelines for responsible conduct. The SGL Carbon Code of Conduct is available on the company's website (www.sglcarbon.com, under "Company/Compliance/Code of Conduct").

SGL Carbon Corporate Governance Principles

The SGL Carbon Corporate Governance Principles summarize the relevant statutory provisions and the company's Articles of Association, as well as supplementary practices of SGL Carbon SE and the Group that were drafted and developed over the years. This statement of principles is intended to ensure responsible and transparent governance and control as well as to foster the trust of stakeholders, business partners and employees, as well as that of the public over the long term. The principles are reviewed at least once a year and updated to take changes in the law, recommendations and market opportunities into account. In addition to the Rules of Procedure for the Board of Management and Supervisory Board and the organizational principles of the SGL Carbon Group, the SGL Carbon Corporate Governance Principles also include the essential corporate guidelines relating to Group-wide corporate governance and compliance.

The above-mentioned SGL Carbon Code of Conduct, which underscores the commitment of the Group and its employees to compliance with the law and internal guidelines and which sets standards for lawful and ethical behavior, is fundamental to all of these documents. Using the Code of Conduct as a starting point, the company has also developed detailed corporate guidelines which apply in equal measure to SGL Carbon SE and the Group and which also form part of the SGL Carbon Corporate Governance Principles. These guidelines include

- a guideline on compliance with antitrust regulations
- a guideline on compliance with capital market regulations
- a whistleblower guideline
- an anti-corruption guideline
- a guideline on the security of information and the underlying infrastructure of the company
- a guideline for defining the process structures for identifying and monitoring the core risks of the company and its business units and functions

Compliance as part of the management and corporate culture

At SGL Carbon, compliance is a key management task of the Board of Management. Management does not tolerate any violation of the Code of Conduct. The senior executives also foster a corporate culture in which issues relating to integrity can be openly addressed with one's supervisor, the compliance representatives and the Group Compliance department. Each employee bears personal responsibility for ensuring that their actions comply with SGL Carbon's Code of Conduct and the rules applicable in their area of work. Compliance must be present in the minds of managers and employees and form an integral part of daily business. Then compliance will also sustainably support the success of the company.

SGL Carbon has been rolling out and implementing a Compliance program throughout the Group for many years. The Board of Management has commissioned the Group Compliance department with managing this program worldwide. The department's task is to manage the necessary overarching organizational-, communication and control structures across all locations, to review them on a regular basis and to adjust them as required. The aim is for compliance to go beyond adherence to legal requirements and structures and for it to be enshrined in the organization as part of value-based corporate management in the sense of an integrity management system in the organization. This is also reflected in the employee surveys conducted by the global HR organization in the fiscal year on the SGL values, including honesty and integrity, which are particularly relevant for compliance. Over the past fiscal year, the SGL Carbon SE's compliance management system was again successfully subjected to an ISO certification in accordance with the ISO 373001:2021 standards (see the separate non-financial Group report/CSR report).

As part of their responsibilities for personnel and leadership, the management and senior executives of SGL Carbon assume an important role-model function for compliance. For this reason, the topic of compliance regularly occupies a fixed place on the agenda of the annual Global Leadership Conference (GLC), at which awareness for the issue of compliance is repeatedly raised among executives at the highest levels of management. At the last Global Leadership Conference (GLC), the participants' compliance knowledge in the compliance risk areas "Competition and antitrust law," "Anti-corruption," "Export control and customs," "Protection of trade secrets" and "Compliance in the supply chain" was tested and recalled in a fun way as part of a competitive team game.

In addition to the compliance representatives of the business units and corporate functions (see separate non-financial Group report/CSR report), the SGL Carbon compliance organization includes a network of regional and local compliance representatives. All members of the network receive appropriate introductory training when they first assume their role. In addition, the Compliance Manual, which is available as a controlled document in the Guidelines directory of SharePoint, describes the essential elements of the Compliance program and the role and responsibility of the Compliance Network. All relevant documents are also available to members on a dedicated SharePoint page. The compliance representatives of the business units and the corporate functions are members of the Compliance Committee, which meets twice a year. The Compliance Committee discusses and approves strategic compliance issues as well as changes to the existing Compliance program. An average of two to three conference calls are held each year to ensure that knowledge is transferred between the Compliance Network and Group Compliance. There are also face-to-face events every two years in the form of regional Compliance conferences in Europe, Asia and North America. The conference calls are used for ongoing exchange of information on the Compliance program as well as discussion of current issues. The Compliance conferences serve the purpose in particular of further development of the Compliance program, taking into account location-specific needs, and are also used to train local representatives of the Compliance function. The three Compliance conferences for the regions of Europe, North America and Asia were held in person again in 2023 for the first time since the pandemic. The agenda included in particular finalizing the Human Rights training program for production staff (see separate non-financial Group report/CSR report). The local compliance representatives are the contact persons for employees at the locations for all matters relating to compliance and support for the Group Compliance department in the local implementation of the Compliance program.

The overriding goal in Compliance is to ensure that all employees are aware of and follow the applicable policies in order to reduce the risk of legal violations and prevent any resulting damage to SGL Carbon. For this reason, the Compliance guidelines are an integral part of the documents that are provided to all new employees. The local Compliance representatives report twice a year to Group Compliance in order to confirm that this process has been properly implemented. An acknowledgment of receipt shall also be placed in each employee's personnel file, documenting in writing that the employee has taken note of the rules contained in the Code of Conduct. This process is also part of an internal check within the framework of the Internal Control System. The Code of Conduct, the Anti-Corruption Guideline, the Guideline on Compliance with Antitrust Regulations, and the Whistleblower Guideline are available in a total of nine local languages. The guidelines are available for employees to download on SharePoint and the intranet. The intranet also provides employees with crucial information and modules of the SGL Compliance program, accessible with just a few clicks. The anti-corruption guideline was the first compliance guideline to be distributed digitally to the target group via the People Portal as part of a pilot project and has been made available to new employees in this form since 2023 (see separate non-financial Group report/CSR report "Anti-corruption and bribery").

Employees also take part in mandatory compliance training, which is conducted as classroom or e-learning training. Initial training is usually provided as online training (see separate non-financial Group report/CSR report).

SGL Carbon has been using a comprehensive global antitrust compliance program since 2001. A fundamental component of this program is mandatory training courses held on a regular basis, with the courses offered in the form of classroom training as well as e-learning. The target group for this mandatory training is all senior executives at the top three management levels in the Group, along with all employees in the areas of Purchasing, Sales and Marketing, Human Resources and the Legal and Compliance department, and members of the Compliance Network. All new employees in this target group receive the SGL Carbon Guideline on Compliance with Antitrust Regulations with their hiring documents or when they change functions, and they then need to participate in the mandatory online basic training. Refresher training is regularly provided to all employees in the target group in both classroom and online formats. In 2023, 98% of employees who were required to attend mandatory training on antitrust law had already completed the training.

Preventative measures in the area of anti-corruption are also an essential part of the Compliance program (see separate non-financial Group report/CSR report "Anti-corruption and Bribery").

In 2015, SGL Carbon rolled out a Code of Conduct for suppliers and subcontractors (the Supplier Code of Conduct), according to which they must commit themselves equally to lawful, ethical and sustainable behavior. This Supplier Code of Conduct was comprehensively revised in 2023 and the target group was expanded. The guideline has also been renamed in “Business Partner Code of Conduct” (see separate non-financial Group report/CSR report “Responsibility in the supply chain”).

SGL Carbon promotes a company culture in which integrity issues can be addressed openly. For questions on appropriate ethical behavior of doubts regarding the adherence to rules and codes of conduct, SGL employees are explicitly encouraged to seek out advice. Furthermore, SGL employees are encouraged and have been asked to report possible compliance violations. For this reason, SGL Carbon has already been implementing a whistleblower system for many years (see separate non-financial Group report/CSR report “Compliance Management”).

Additional compliance measures relate to capital market law and adherence to the corresponding Group guideline, which provides guidance on matters such as trading in securities of SGL Carbon SE for board members and employees as well as proper handling of potential insider information. The Ad-Hoc Committee has been in place for years, with members who represent various functions in the evaluation of relevant matters for their ad-hoc relevance. The objective of the committee is to ensure that potential insider information is handled in compliance with the law.

The existing Compliance program on export controls and customs ensures that goods and technologies are exchanged and that services are used according to the relevant internal and external requirements (see separate non-financial Group report/CSR report “Responsibility in the Supply Chain”).

Within the scope of its regular audits in 2023, the Group Internal Audit department again reviewed the implementation of anti-corruption and anti-fraud management at individual subsidiaries. The focus here was on obtaining audit certainty as to whether the defined Compliance rules are being adhered to locally at the companies. The task also involved recognizing and uncovering individual rule violations. If the audits find that work processes need to be optimized or control measures need to be intensified, the relevant processes are updated.

An effective compliance management system includes regular risk assessments. Following the top-down risk assessments which were performed as interviews with all members of the Management Committees of the business units and corporate functions in 2021 and 2022, the focus in the past fiscal year was on the human rights risk category. A human rights impact risk assessment was analyzed for all locations to evaluate any risks in the company’s own business units (see separate non-financial Group report/CSR report “Governance”).

At its March meeting, the Audit Committee of the Supervisory Board dealt in detail with the Compliance Annual Report 2023.

Systematic risk management system

The SGL Carbon Group developed a risk management system at an early stage to address risks and opportunities in a responsible manner as part of good corporate governance. For further explanations in regard to the internal audit system and to the risk management system, please refer to the Opportunities and Risks report.

Disclosures in accordance with the Act on Equal Participation of Men and Women in Executive Positions and disclosures on minimum percentages on the Supervisory Board

In accordance with the legislation on Equal Participation of Men and Women in Executive Positions in the Public and Private Sectors, the company has set targets for the percentage of women on the Board of Management and subsequent management levels and their implementation period. In December 2019, the Supervisory Board set a target of 0% for the percentage of women on the Board of Management of SGL Carbon SE by December 31, 2022, particularly in view of the size of the Board of Management with only two members (i.e., a target number of 0 female Supervisory Board members). The percentage of female members on the company’s Board of Management as of December 31, 2022, was 0%, which was in line with the target figure. The Board of Management has in turn resolved a target for the percentage of women at the management level of SGL Carbon SE below the Board of Management of at least 20.83% by December 31, 2022. On December 31, 2022, the percentage of women was at 30.77% (four women). The target set was met here as well. It was not possible to set a quota for women for a second management level below the Board of Management at the company. This is due to the fact that there is only one relevant management level (with relevant personnel and management expertise) below the Board of Management at SGL Carbon SE, which is purely a Group parent company with a flat hierarchical structure.

With the completion of the reference period ending on December 31, 2022, target figures for the following period were ratified for the following period. The Supervisory Board has once again set the percentage of women for the SGL Carbon SE Management Board to a share of 0%, that is, a target figure of 0 female Supervisory Board members until December 31, 2025 (percentage of women at the time of ratifying the resolution: 0%). The Supervisory Board continues to consider this quota appropriate since the Management Board only consists of two members. A percentage of women of more than 0% would have the result that, given the size of the Supervisory Board, gender would overly predetermine the choice between two possible candidates for new appointments. When selecting suitable members of the Board of Management, the Supervisory Board will in principle take into account not only the professional and personal qualifications, which are the essential basic prerequisites for appointment, but also the professional diversity, international experience and gender diversity of the Board in the interest of a diverse composition of the body in the particular individual case. However, it is not intended on the part of the Supervisory Board to already determine this consideration to be made for a concrete field of applicants today in an abstract manner. To this end, it should also be pointed out that in the case of listed stock corporations subject to co-determination, the law only stipulates a mandatory minimum quota for management boards of a certain size, i.e., for a Supervisory Board with more than three members (Section 76 (3a) AktG). In addition, setting a higher percentage of women would force the Supervisory Board to either increase the size of the Management Board or indirectly force a decision today to end the mandate of one of the current Supervisory Board members or no longer continue it. Both are far-reaching decisions for which the Supervisory Board does not consider a premature determination to be in the interest of the company. The percentage of female members on the company's Board of Management as of December 31, 2023, was 0%, which was in line with the target figure.

In addition, the Supervisory Board of the company has also ratified the target figure for the percentage of women at the executive level of SGL Carbon SE below the Board of Management with a quota of at least 30.77%, that is, four female managers, by December 31, 2025 (percentage of females at the time of ratification: 30.77%, that is, four female executives). As of December 31, 2023, the percentage of women at this management level was 30.77%, i.e. four female executives. It was not possible to set a quota for women for a second management level below the Board of Management at the company. This is due to the fact that there is only one relevant management level (with relevant personnel and management expertise) below the Board of Management at SGL Carbon SE, which is purely a Group parent company with a flat hierarchical structure.

In addition, the legislation on Equal Participation of Men and Women in Executive Positions requires that the Supervisory Board of SGL Carbon SE include at least two women and at least two men with a Supervisory Board size of eight members. The company fulfills these requirements with regard to the composition of the Supervisory Board in the reporting year.

Diversity concepts for company management

According to the company's Corporate Governance Principles, diversity must be taken into account in the composition of the Board of Management. This first refers to professional diversity, which is manifested in the existing structure of the company in that at least one of the members of the Board of Management has extensive experience in the operating business of the enterprise, in strategic governance and in the financial, controlling and reporting processes. Another crucial factor is that SGL Carbon's international nature is also reflected in its extensive professional experience in and with foreign countries. With regard to gender distribution, in view of the size of the company's Board of Management, which regularly consists of just two members, a far-reaching quota was neither deemed appropriate nor defined (see "Determinations in accordance with the Act on Equal Participation of Women and Men in Executive Positions and Disclosures on minimum percentages on the Supervisory Board" above). With regard to the age structure, we intend for the age limit for Board of Management members to be 65 years. When appointing new members, the Supervisory Board takes its bearings from this requirements profile, ensuring that the best candidate for a vacant position can be appointed in each case in the interest of the company. The current composition of the Board of Management meets the company's targets for appropriate appointments.

The company is looking to develop suitable candidates from within the ranks of the enterprise in order to fill any Board of Management vacancies that arise. This does not preclude the Supervisory Board from drawing on external candidates exclusively or additionally in the selection process, depending on the specific situation. To identify and develop employees with appropriate leadership potential in order to fill top management roles, the company has a systematic approach to management development that includes the following key elements: (i) early identification of suitable candidates from a variety of different disciplines, nationalities and genders; (ii) systematic development of senior executives through the assignment of tasks with increasing responsibility, preferably in a variety of different businesses and functions; (iii) regular and systematic review of individual suitability requirements for the target levels under consideration (relevant skill sets, professional experience and role-model function in terms of corporate culture). Using the skill set profile developed by the Supervisory Board as a benchmark, the company will identify candidates who may be included in the Supervisory Board's selection process. This is intended to make it possible for the Supervisory Board to ensure sufficient diversity in terms of professional training and experience, cultural background and diversity in the appointment of members to the Board of Management. Regardless of these criteria, the company believes that in the final analysis, only a holistic assessment of each individual can be the decisive factor for appointment to the Board of Management. When external candidates are involved, the company will regularly make an appropriate selection on the basis of the skill sets required for the Board of Management position by drawing on the assistance of qualified personnel consulting firms.

With regard to its own composition, the Supervisory Board of the company has defined a skill set profile and set detailed targets for itself in order to reflect various perspectives and backgrounds of experience on the Supervisory Board. The details of this diversity concept are described in this report above under "The composition and procedures of the Supervisory Board and its committees/Targets of the Supervisory Board regarding its composition." These targets are taken into account when new Supervisory Board members are proposed for appointment. In the current composition of the Supervisory Board, a Supervisory Board composition that is appropriate according to the above-mentioned targets is achieved.

Additional disclosures

Shareholders and the Annual General Meeting

The shareholders of SGL Carbon SE exercise their rights at the company's Annual General Meeting. At the Annual General Meeting, the shareholder representatives elect the Supervisory Board in particular, while also electing the auditor and passing the resolution on discharge of the Board of Management and the Supervisory Board. They also decide on appropriation of unappropriated profits, on capital measures and on the approval of intercompany agreements, as well as on the remuneration of the Supervisory Board and on amendments to the company's Articles of Association. The Annual General Meeting is convened once per year. Each share is granted one vote. Shareholders may regularly exercise their voting rights at the Annual General Meeting either in person or through a proxy of their choice or through a company-nominated proxy acting on their behalf. In accordance with the rules, voting instructions may be issued to the company's proxy both before and during the Annual General Meeting until the end of general debate. Shareholders also have the opportunity to cast their votes in writing by postal vote without authorizing a proxy.

Active and transparent communication for the shareholders of SGL Carbon SE

The primary objective of the Board of Management is to comprehensively report to all target groups and in particular to the shareholders while providing the same information at the same time to all of these parties. Regularly recurring events (such as the Annual General Meeting, [telephone-] conferences with analysts and investors) and reports or announcements (such as the Annual Report, interim reports, presentations at the Annual General Meeting, press releases and ad hoc announcements) are published on the company's website.

Remuneration system and remuneration report as per Section 162 of the German Stock Corporation Act (AktG)

The remuneration report on the most recent fiscal year as well as the auditor's report as per Section 162 AktG, the applicable remuneration system as per Section 87a (1 and 2) (1) AktG, and the most recent remuneration resolution as per Section 113 AktG are made publicly available on the company's website at www.sglcarbon.com (available there under "Company/Corporate Governance"; www.sglcarbon.com/unternehmen/corporate-governance).

Disclosures on the auditor

The Frankfurt branch of KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin, has been the auditor for SGL Carbon SE and the SGL Carbon SE Group since the 2017 fiscal year (January 1, 2017, to December 31, 2017). Mr. Michael Pritzer has been signing as the responsible auditor since the 2022 fiscal year. The appointment of KPMG AG Wirtschaftsprüfungsgesellschaft was preceded by a tender and selection process for the audit as per Art. 16 (3) of Regulation (EU) No. 537/2014 of the European Parliament and of the Council of April 16, 2014 (Audit Regulation).

Information on auditor's fees can be found in the Notes of this Annual Report.

Based on the recommendation of its Audit Committee, the Supervisory Board will propose to the Annual General Meeting 2024 to appoint KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin, as auditors of the company and the Group for the 2024 fiscal year (and also for audit services required for any review of financial information during the year).

Deductible for D&O- insurance

The company has taken out a directors'- and officers' liability insurance- (D&O- insurance) policy for members of the Board of Management and Supervisory Board with a deductible of 10% of the loss up to the amount of one and a half times the fixed annual remuneration of the member concerned.

Share transactions by the Board of Management and Supervisory Board

The members of the Board of Management and the Supervisory Board, as well as persons closely related to them, are required by the relevant capital market regulations to disclose proprietary transactions involving shares, debt instruments or certain other related financial instruments of SGL Carbon SE if the total value of these transactions exceeds a threshold value within a calendar year. Notifications are published on the company's website (www.sglcarbon.com, under "Investor Relations/Share/Managers' Transactions").

Wiesbaden, March 20, 2024

SGL Carbon SE

The Board of Management of SGL
Carbon SE

Dr. Torsten Derr **Thomas Dippold**

Consolidated Financial Statements

Consolidated Income Statement

For the period from January 1 to December 31

€m	Note	2023	2022
Sales revenue	**5, 28**	**1,089.1**	**1,135.9**
Cost of sales		−853.5	−882.3
Gross profit		**235.6**	**253.6**
Selling expenses		−99.3	−107.6
Research and development costs		−29.7	−29.3
General and administrative expenses		−37.1	−41.2
Other operating income	6	26.3	17.9
Other operating expenses	6	−8.0	−15.4
Result from investments accounted for At-Equity	7	18.3	18.2
Restructuring income		-	24.7
Impairment losses	8	−49.5	-
Operating profit		**56.6**	**120.9**
Interest income	9	5.1	0.9
Interest expense	9	−35.8	−25.2
Other financing result	9	−3.5	−2.0
Result from continuing operations before income taxes		**22.4**	**94.6**
Income tax (expense)/income	10	19.3	31.3
Result from continuing operations		**41.7**	**125.9**
Result from discontinued operations, net of income taxes		-	1.5
Net result for the year		**41.7**	**127.4**
Thereof attributable to:			
Non-controlling interests		0.7	0.5
Consolidated net result (attributable to the shareholders of the parent company)		41.0	126.9
Earnings per share basic (in €)	11	0.34	1.04
Earnings per share, diluted (in €)	11	0.34	1.02
Earnings per share continuing operations, basic (in €)		0.34	1.03
Earnings per share continuing operations, diluted (in €)		0.34	1.01

Consolidated Statement of Comprehensive Income

For the period from January 1 to December 31

€m	Note	2023	2022
Net result for the year		**41.7**	**127.4**
Items that may be reclassified subsequently to profit or loss			
Share of investments accounted for At-Equity in other comprehensive income	7	0.2	3.3
Cash flow hedges [1)]	27	0.9	0.7
Currency translation [2)]		–11.1	8.8
Items that will not be reclassified to profit and loss			
Actuarial gains/losses on pensions and similar obligations [3)]	22	–9.3	46.1
Other comprehensive income		**–19.3**	**58.9**
Comprehensive income		**22.4**	**186.3**
Thereof attributable to:			
Non-controlling interests		0.7	0.5
Consolidated net result (attributable to the shareholders of the parent company)		21.7	185.8

[1)] Includes tax effects of €0.0 million (2022: €0.1 million)
[2)] Includes tax effects of €0.0 million (2022: €0.0 million)
[1)] Includes tax effects of €0.0 million (2022: €1.2 million)

Consolidated Balance Sheet

December 31

ASSETS €m	Note	Dec. 31, 23	Dec. 31, 22
Goodwill	12	22.4	23.0
Other intangible assets	12	13.0	14.9
Property, plant and equipment	13	532.2	545.0
Investments accounted for At-Equity	7	68.2	60.7
Other non-current assets	14	6.6	5.5
Deferred tax assets	19	73.2	43.9
Total non-current assets		**715.6**	**693.0**
Inventories	15	373.6	324.0
Trade receivables and contract assets	16	150.9	182.4
Other receivables and other assets	17	33.1	42.3
Liquidity	18	199.4	227.3
Time deposits		*65.0*	-
Cash and cash equivalents		*134.4*	*227.3*
Total current assets		**757.0**	**776.0**
Assets held for sale	**20**	**-**	**11.3**
Total assets		**1,472.6**	**1,480.3**

EQUITY AND LIABILITIES €m	Note	Dec. 31, 23	Dec. 31, 22
Issued capital	21	313.2	313.2
Capital reserves	21	1,067.8	1,053.5
Accumulated losses		−775.7	−797.4
Equity attributable to the shareholders of the parent company		**605.3**	**569.3**
Non-controlling interests		9.6	9.3
Total equity		**614.9**	**578.6**
Provisions for pensions and similar employee benefits	22	206.1	202.3
Other provisions	23	12.5	18.2
Interest-bearing loans	24	279.8	342.5
Contract liabilities	24	64.2	17.4
Other financial liabilities	24	18.8	14.5
Other liabilities	24	0.0	4.5
Deferred tax liabilities	19	1.9	1.4
Total non-current liabilities		**583.3**	**600.8**
Other provisions	23	79.1	74.8
Current portion of interest-bearing loans	24	3.0	34.9
Trade payables and contract liabilities	24	154.3	143.7
Other financial liabilities	24	11.7	10.7
Other liabilities	24	26.3	34.0
Total current liabilities		**274.4**	**298.1**
Liabilities in connection with assets held for sale	**20**	**-**	**2.8**
Total equity and liabilities		**1,472.6**	**1,480.3**

Consolidated Cash Flow Statement

For the period from January 1 to December 31

€m	Note	2023	2022
Cash flow from operating activities			
Result from continuing operations before income taxes		22.4	94.6
Adjustments to reconcile the result from continuing operations to cash flow from operating activities:			
Interest expense (net)		30.7	24.3
Change in value of contract assets (IFRS 15)		−9.0	−5.4
Result from the disposal of property, plant and equipment		0.2	0.5
Depreciation/amortization expense		60.2	66.7
Impairment losses	8	49.5	-
Restructuring income		-	−24.7
Result from investments accounted for At-Equity	7	−18.3	−18.2
Other financing result		3.5	2.0
Interests received		4.9	0.9
Income taxes paid	10	−13.1	−12.5
Changes in provisions, net		−13.1	−26.1
Changes in working capital			
Inventories		−62.6	−59.0
Trade receivables		45.5	3.5
Trade payables and contract liabilities		58.2	47.5
Changes in other operating assets/liabilities		4.8	0.3
Cash flow from operating activities		**163.8**	**94.4**

€m	Note	2023	2022
Cash flow from investing activities			
Payments to purchase intangible assets and property, plant and equipment		−87.1	−52.9
Proceeds from the sale of intangible assets and property, plant and equipment		8.2	10.6
Dividend payments from investments accounted for At-Equity		10.7	15.7
Cash flow from investing activities before time deposits		**−68.2**	**−26.6**
Disbursements due to time deposits		−65.0	-
Cash flow from investing activities		**−133.2**	**−26.6**
Cash flow from financing activities			
Proceeds from the issuance of financial liabilities		193.7	106.9
Repayment of financial liabilities		−276.6	−135.9
Redemption payments for lease liabilities		−8.5	−9.5
Payments in connection with financing activities		−4.7	−2.5
Interest paid		−25.2	−18.6
Other financing activities		−0.4	−0.5
Cash flow from financing activities		**−121.7**	**−60.1**
Effect of foreign exchange rate changes		−1.8	−1.3
Net change in cash and cash equivalents		**−92.9**	**6.4**
Cash and cash equivalents at beginning of year		227.3	220.9
Cash and cash equivalents at end of year		**134.4**	**227.3**
Time deposits at end of year		*65.0*	-
Liquidity	***18***	***199.4***	***227.3***

Consolidated Statement of Changes in Equity

For the period from January 1 to December 31

	Equity attributable to the shareholders of the parent company									
				Accumulated losses						
				Accumulated other comprehensive income						
€m	**Issued capital**	**Capital reserves**	**Accumulated profit/loss**	**Currency translation**	**Cash flow hedges (net)**	**Investments accounted for At-Equity**	**Accumulated losses**	**Equity attributable to the shareholders of the parent company**	**Non-controlling interests**	**Total equity**
Balance at Jan. 1, 22	**313.2**	**1,041.5**	**−940.8**	**−38.7**	**−0.2**	**−3.5**	**−983.2**	**371.5**	**9.3**	**380.8**
Net result for the year			126.9				126.9	126.9	0.5	127.4
Other comprehensive income			46.1	8.8	0.7	3.3	58.9	58.9		58.9
Comprehensive income			**173.0**	**8.8**	**0.7**	**3.3**	**185.8**	**185.8**	**0.5**	**186.3**
Dividends							0.0	0.0	−0.5	−0.5
Equity component of convertible bonds		12.0						12.0		12.0
Balance at Dec. 31, 22	**313.2**	**1,053.5**	**−767.8**	**−29.9**	**0.5**	**−0.2**	**−797.4**	**569.3**	**9.3**	**578.6**
Net result for the year			41.0				41.0	41.0	0.7	41.7
Other comprehensive income			−9.3	−11.1	0.9	0.2	−19.3	−19.3		−19.3
Comprehensive income			**31.7**	**−11.1**	**0.9**	**0.2**	**21.7**	**21.7**	**0.7**	**22.4**
Dividends									−0.4	−0.4
Equity component of convertible bonds [1)]		14.3						14.3		14.3
Balance at Dec. 31, 23	**313.2**	**1,067.8**	**−736.1**	**−41.0**	**1.4**	**0.0**	**−775.7**	**605.3**	**9.6**	**614.9**

[1)] After deduction of transaction costs of €0.4 million

Notes to the Consolidated Financial Statements

1. General information

SGL Carbon SE (Commercial Register Number HRB 23960 Wiesbaden), together with its subsidiaries (the Company or SGL Carbon), is a global manufacturer of products and solutions based on carbon fibers and special graphites. The Company has its registered office in Wiesbaden, Germany. Its mailing address is: SGL Carbon SE, Söhnleinstrasse 8, 65201 Wiesbaden.

SGL Carbon has prepared its consolidated financial statements in accordance with International Financial Reporting Standards (IFRS), as adopted by the European Union (EU) and the additional requirements of German commercial law pursuant to Section 315e (1) of the German Commercial Code (HGB).

These consolidated financial statements for the year ending December 31, 2023, were authorized for publication by the Board of Management on March 20, 2024.

The consolidated financial statements are generally prepared on the basis of historical cost unless stated otherwise in Note 3. The consolidated financial statements have been prepared in euros (€). The figures are presented in millions of euros (€ million), rounded to one decimal place, unless stated otherwise. Due to rounding, figures may not add up precisely to the totals provided.

2. Use of estimates and material discretionary decisions

The consolidated financial statements are prepared according to the following consolidation, accounting and valuation principles. In certain cases, it is necessary to make estimates and assumptions that may affect the carrying amounts of assets and liabilities on the balance sheet and the amounts of expenses and income. These estimates and assumptions can change over time and may have a significant impact on the net assets, financial position and results of operations of SGL Carbon.

All estimates and assumptions are made to the best of our knowledge and belief and are continually reviewed to provide a true and fair view of financial position and financial performance, and results of operations of the Group, especially because of increasingly complex and uncertain macroeconomic and geopolitical environment facing SGL Carbon. Added to this, there is increasing volatility on the goods and financial markets – including share prices and exchange rates, due to rising interest rates and inflation rates – as well as increasing risks of a possible economic downturn. Actual amounts may differ from these estimates. The uncertainties associated with forecasts, key accounting estimates and material discretionary decisions made by management are increasing. The estimates and judgments that have a material effect on the consolidated financial statements are included in the following notes:

- Timing of revenue recognition for contracts with customer-specific products; Notes 3 and 28
- Recognition of deferred tax assets: Availability of future taxable profits against which deductible temporary differences and tax loss carryforwards can be utilized; Notes 3 and 19
- Impairment tests of property, plant and equipment and other intangible assets: key assumptions underlying the determination of the recoverable amount, including the definition of the time horizon for the inclusion of cash flows; Notes 3, 8 and 13
- Measurement of defined benefit obligations: material actuarial assumptions; Notes 3 and 22

3. Summary of material accounting policies

Consolidation principles

The consolidated financial statements include SGL Carbon SE and its subsidiaries over which SGL Carbon exercises control. SGL Carbon controls a company to the extent that it has power over it. In addition, SGL Carbon is exposed or has rights to variable returns from its involvement with investees and has the ability to affect those returns through its power over the investee. At December 31, 2023, 12 German (previous year: 14) and 29 foreign subsidiaries (previous year: 30) were consolidated in addition to SGL Carbon SE. One jointly controlled company (previous year: one) and two associated companies (previous year: two) were accounted for At-Equity. The list of companies included in the consolidated financial statements and the total shareholdings are shown in the list of shareholdings in Note 31 in accordance with section 313(2) HGB.

Associates and joint ventures

Associates are companies in which SGL Carbon may exercise significant influence over operating and financial policies. Joint ventures are companies in which SGL Carbon and at least one other party exercise joint control. Joint control exists when decisions about material activities require unanimous consent of the parties sharing joint control. Interests in joint ventures and associates are included in the Group are accounted for At-Equity. SGL Carbon's share of post-acquisition profit or loss of the joint ventures or associates is recognized on the consolidated income statement, while its share of other comprehensive income and of changes in equity that has not been recognized in profit or loss is recognized directly in consolidated equity. The cumulative changes after the acquisition date increase or decrease the carrying amount of the investment in the joint ventures and associates. If the losses of a joint venture or associate attributable to SGL Carbon correspond to or exceed the value of the investment in that enterprise, there will be no further share of losses recognized on the balance sheet. The investment in an associate or joint venture is the carrying amount of the investment plus any non-current loans that are attributable to SGL Carbon's net investment in the associate or joint venture.

Foreign currency translation

Translation of items denominated in foreign currency

In the separate financial statements of the Group companies, all foreign currency receivables and payables are valued at the middle rates at the balance sheet date, regardless of whether they are hedged or not. Exchange rate differences resulting from the measurement of foreign currency positions are recognized on the income statement as other operating expenses and/or other operating income items. This does not include monetary items designated as part of a hedge of the Group's net investment in a foreign operation. These are recognized directly in equity (currency translation reserve) until disposal of the net investment; only on disposal is the cumulative amount reclassified to the income statement. Taxes resulting from the exchange differences of these monetary items are also recognized directly in equity.

Translation of financial statements in foreign currency

The financial statements of consolidated companies prepared in foreign currencies are translated in accordance with the functional currency concept (IAS 21) using the modified closing rate method. As all subsidiaries operate their business independently in financial, economic and organizational terms, the functional currency is identical to the respective local currency. Balance sheet items are consequently translated at the closing rate on the balance sheet date and income statement items at average rates for the year. Exchange differences arising from the translation are recognized as a separate component of equity until disposal of the foreign operation.

The exchange rates of the major currencies for SGL Carbon developed as follows:

Currencies		Middle rate at balance sheet date		Annual average rates	
1€ =	**ISO-Code**	Dec. 31, 23	**Dec. 31, 22**	2023	**2022**
US dollar	USD	1.1050	1.0666	1.0813	1.0530
Pound sterling	GBP	0.8691	0.8869	0.8698	0.8528
Polish zloty	PLN	4.3480	4.6899	4.5420	4.6861
Chinese yuan	CNY	7.8592	7.4229	7.6600	7.0788
Japanese yen	JPN	156.33	140.66	151.99	138.03

Sales revenue, contract assets, trade receivables and contract liabilities

Recognition of sales revenue: Sales revenue is recognized when control of the goods has been transferred or the service has been rendered, that is, when the customer has the ability to direct the use of the transferred goods or services and substantially obtains all of the remaining benefits from them. The prerequisite for this is that a contract with enforceable rights and obligations exists and, among other things, it is probably that SGL will collect the consideration, taking into account the customer's creditworthiness.

Sales revenue comprises the equivalent value that SGL Carbon expects to receive for the transfer of goods or the rendering of services. Sales revenue from contracts with customers corresponds to the transaction price. The transaction price only includes variable consideration if there is a high probability that there will not be a material reversal of sales revenue when the variable consideration actually occurs. Variable consideration may include, for example, volume discounts or credits in connection with bonus agreements.

SGL Carbon agrees payment terms that are common national and industry-practice. SGL Carbon receives advance payments from customers for the sale of individually manufactured products with a lead time for production of up to three years from the conclusion of the contract and receipt of payment. These contracts contain a significant financing component due to the time span between payment by the customer and its transfer, as well as the market interest rate. Therefore, the transaction price for these contracts is discounted at the implied interest rate in the contract (i.e., the rate at which the cash selling price of the products is discounted to the amount paid in advance). This interest rate corresponds to the interest rate that would have been used in a separate financing transaction between the Group and the customer at the beginning of the contract.

Warranty obligations provide assurance to the customer that the delivered goods comply with the contractually agreed specifications. Such obligations do not represent a separate performance obligation and are recognized as a provision in accordance with IAS 37.

Sales revenue from standard products: Revenue from the sale of standard products is recognized when control is transferred to the acquirer, usually upon delivery of the goods. Invoices will be issued at this point in time.

Revenue from contracts with customer-specific products: In the case of order-related manufacturing where a contract work has to be delivered and the final product cannot be sold to (any) other customer (customer-specific asset with no alternative use), sales revenue is recognized over the manufacturing period using the percentage-of-completion method based on the ratio of costs already incurred to the estimated total costs as the costs incurred are in relation to the progress of SGL Carbon's performance in fulfilling the obligation. An expected loss from a contract is recognized immediately as an expense.

When recognizing revenue over a production period, the assessment of whether an asset is highly customized to a particular customer is of particular importance, as is the determination of the consideration that SGL Carbon expects to receive. This generally results from individual sales prices. If these are not directly observable, a reasonable estimate of the individual sale price is made.

Sales revenue from the provision of services: Services are generally provided in connection with the sale of products and are recognized as soon as the service has been rendered. The amount of sales revenue from the provision of services plays a minor role compared with sales revenue from the transfer of goods.

Contract assets, contract liabilities and trade receivables
If one of the parties to a contract with a customer has fulfilled its contractual obligations, a contract asset or contract liability is recognized depending on the relationship between SGL Carbon's performance and the customer's payment. Contract assets result primarily from sales of goods where control is transferred to the customer before SGL Carbon has obtained an unconditional right to receive payment. Contract liabilities mainly result from

advance payments received for products not yet delivered. Contract assets and contract liabilities are netted at contract level and reported as short-term, since they are incurred within the regular operating cycle. An exception are advance payments from customers for products with a production lead time of more than one year, which are reported under non-current liabilities. Receivables are recognized when the right to receive the consideration is no longer subject to any conditions. Valuation allowances for credit losses on contract assets and trade receivables are recognized in accordance with the accounting principles for financial assets measured at amortized cost.

For information on impairments on receivables from contracts with customers, please refer to Note 27 keyword “credit risks.”

Income and expenses

Cost of sales includes the cost of goods sold and services rendered as well as contract costs from customer-specific products. In addition to directly attributable direct costs, these also include attributable overhead expenses. The main components of the cost of sales are the cost of materials, personnel expenses and depreciation and amortization of property, plant and equipment and intangible assets. This item also includes expenses for warranties. Operating expenses are recognized in profit or loss when the service has been used or when expenses have been incurred.

Research expenses are recognized immediately as an expense. Development costs are capitalized if the capitalization criteria of IAS 38 are met.

Interest income and expenses are recognized on an accrual basis. Advertising and sales promotion expenses and other customer-related expenses are immediately recognized in profit or loss.

Provisions for estimated expenses under statutory warranties are recognized as costs of sales when the sales revenue is recorded in the amount of the estimated usability based on past experience.

Government grants

Government grants are recognized when there is reasonable assurance that the grants will be received, and the entity will comply with the conditions attached to them. Grants related to income are presented as other operating income on a systematic basis over the period that the related expenses for which they are intended to compensate are recognized. Performance-based grants are reported separately under other operating income. Government grants for the acquisition or construction of property, plant and equipment reduce the costs of acquisition or conversion of the relevant assets.

Earnings per share

“Basic earnings per share” are calculated by dividing the share of net profit for the year attributable to shareholders of the parent company by the weighted average number of shares outstanding during the fiscal year. “Earnings per share, diluted” takes into account all potentially dilutive convertible bonds and share-based payment plans, assuming conversion or exercise.

Goodwill

Goodwill is not subject to amortization but is tested for impairment once a year or more frequently if there are indications of impairment. Goodwill is carried at cost less any accumulated impairment. Goodwill is tested for impairment at the level of a (group of) cash-generating unit(s), which at SGL Carbon is generally represented by a segment. At Graphite Solutions (GS), this is one level below the segment. The (group of) cash-generating unit(s) represents the lowest level at which goodwill is monitored for internal Company management purposes. An impairment would arise if the carrying amount of the cash generating unit (CGU) to which goodwill is allocated is higher than its recoverable amount. For further information on the procedure for determining the recoverable amount, refer to the section “Impairment tests of property, plant and equipment and other intangible assets.”

Property, plant and equipment, other intangible assets and investment property

Tangible and other intangible assets used in the business for more than one year are recognized at cost less amortization and any impairments. This also implies to investment properties. These comprise property held by the Company to earn rentals and/or for capital appreciation that are not used in production or for administrative purposes. Where depreciable property, plant and equipment consists of material identifiable components, each with a different useful life, these components are treated as separate units of account and depreciated over their respective useful lives.

Depreciation of property, plant and equipment and amortization of intangible assets are calculated using the straight-line method on the basis of the following useful lives, which are applied uniformly throughout the Group:

Property, plant and equipment – useful lives

Buildings	10 to 40 years
Plant and machinery	4 to 25 years
Other equipment	3 to 15 years
Office furniture and equipment	3 to 15 years
Investment property	5 to 40 years

Useful lives intangible assets

Industrial rights, software and similar rights	3 to 5 years
Customer relationships	3 to 12 years
Capitalized development costs	3 to 12 years

Leasing

A lease is a contract that conveys the right to use an asset (the leased asset) for an agreed period of time in exchange for payment.

As a lessee, SGL Carbon generally recognizes assets for the rights to use the leased assets and liabilities for the payment obligations entered into at present values for all leases on its balance sheet in accordance with IFRS 16. Lease liabilities include the following lease payments:

- Fixed payments, less any lease incentives payable by the lessor
- Variable payments linked to an index or interest rate
- The exercise price of a purchase option if it is reasonably certain that the option will be exercised.

Lease payments are discounted at the interest rate implicit in the lease, if that rate can be readily determined. Otherwise, discounting occurs at the incremental borrowing rate. SGL Carbon applies a single discount rate to a portfolio of leases with similar characteristics. Right-of-use assets are measured at cost comprising the lease liability plus any directly attributable costs. They are subsequently measured at amortized cost. Right-of-use assets are depreciated on a straight-line basis over the period of the contractual relationship.

Practical reliefs are used for low-value leased assets (up to a new

value of €5,000) and for short-term leases (less than twelve months), and the payments are recognized as an expense on the income statement on a straight-line basis over the lease term. In the case of contracts containing both non-lease components and lease components, use is made of the option not to separate these components in the case of technical equipment and machinery. IFRS 16 is not applied to intercompany leases, and the periodic lease expense is recognized on the consolidated income statement.

If SGL Carbon concludes contracts as a lessor, these contracts are classified as finance leases in accordance with IFRS 16 if substantially all risks and rewards associated with ownership of the leased asset are transferred to the lessee. All other short-term rental and lease transactions are classified as operating leases in accordance with IFRS 16. If the Company enters into finance lease agreements as lessor, the lease installments payable to the lessee in the future are recognized as a lease receivable in the amount of the net investment value from the lease contract. These are measured on the basis of the simplified impairment model in accordance with IFRS 9. In the case of operating leases, the Company recognizes the leased asset as an asset at amortized cost included in property, plant and equipment. Lease installments received during the period are shown under sales revenue.

Impairment test of property, plant and equipment and other intangible assets

On each balance sheet date, an assessment is made as to whether there are any indications (trigger events) that intangible assets and property, plant and equipment are impaired. If such indications are identifiable, the recoverable amount of the relevant asset is determined and compared with the carrying amount to determine the scope of any impairment that may need to be recognized. The recoverable amount is the higher of fair value less costs to sell (net realizable value) and value in use, with the value in use first being determined by SGL Carbon. If this amount is higher than the carrying amount, the net realizable value will not be calculated. SGL Carbon determines these values using a generally accepted measurement model on the basis of discounted future cash flows; this corresponds to Level 3 of the fair value hierarchy of IFRS 13. If an asset does not generate cash flows that are largely independent of the cash flows from other assets, the impairment test is not conducted at the level of the individual asset but at the level of the CGU to which the asset belongs.

The cash flows are generally based on five-year plans (in exceptional cases up to seven years) for the individual CGUs that have been prepared using a bottom-up approach and that have been analyzed by the Board of Management of SGL Carbon and acknowledged by the Supervisory Board. The planning is based on internal expectations and assumptions that have been checked and verified against external data. The planning includes sales, revenue and cost planning, together with the associated forecasts of operating results and cash flows for each year and for each CGU. Sales revenues and earnings development are planned at product or product group level based on the expected market, economic and competitive developments over the next five years and aggregated on the CGU level. Cash flows beyond the planning period are extrapolated using individual growth rates (for impairment tests of goodwill) or limited to the duration of the expected remaining useful life of the primary production facilities (for impairment test of property, plant and equipment and other intangible assets).

Future cash flows are discounted to their present value using a discount rate that reflects current market expectations regarding interest rates and the specific risks related to the asset or CGU. Most material assumptions on which the determination of the recoverable amount is based include estimated cash flows (especially sales- and EBITDA-development), growth rates and the weighted average cost of capital as well as remaining useful lives of the primary production facilities. The forecast result is influenced by volatility on the capital markets, interest rate developments, fluctuations in exchange rates or expected economic developments. We assume in our planning that there will be sufficient availability of electricity and gas in Europe, and in Germany in particular. We also assume that possible factor cost increases can be passed on at least partially to customers through pricing initiatives. These assumptions and the underlying methodology may have a significant impact on the respective values and, ultimately, on the amount of any impairment applied to the asset.

As soon as there is any evidence that the reasons for the impairments recognized no longer exist, the need for a full or partial reversal of the impairment is assessed.

Financial instruments

A financial instrument as defined by IAS 32 is a contractually agreed right or obligation which results in an inflow or outflow of financial assets or the issuance of equity instruments. On the one hand, financial instruments include primary financial instruments such as trade receivables and payables, securities or financial receivables and borrowings and other financial liabilities; on the other hand, they also include derivative financial instruments used to hedge against risks arising from changes in exchange rates and interest rates.

Generally, financial instruments are initially recognized at their fair value upon initial measurement. Transaction costs directly attributable to the acquisition or issue of financial instruments are included in the initial measurement of the carrying amount. Under certain conditions, embedded derivatives are separated from the underlying instrument (financial instrument) and accounted for separately at fair value. A regular way purchase or sale of financial assets is recognized on the trade date. Subsequent measurement of financial instruments is based on the category to which they are allocated: financial assets and liabilities measured at amortized cost, financial assets measured at fair value through other comprehensive income and financial assets and liabilities measured at fair value through profit or loss.

In accordance with the classification requirements of IFRS 9, SGL Carbon classifies financial assets and financial liabilities into the following classes:

Financial assets measured at amortized costs: Liquidity, trade receivables and contract assets held under the "Held to collect contractual cash flows" business model, whose contractual cash flows solely represent principal and interest payments, are measured at amortized cost.

Financial liabilities measured at amortized cost: Financial liabilities, with the exception of derivatives, are measured at amortized cost using the effective interest method.

Financial assets measured at fair value through other comprehensive income: If the business model generally provides for the assets to be held but they are also sold and their cash flows consist exclusively of interest and principal payments, these assets are measured at fair value outside of profit or loss. SGL Carbon does not apply this measurement category.

Financial assets and financial liabilities measured at fair value through profit or loss: Financial assets that are solely payments of principal and interest, but that are not held within one of the two aforementioned business models, are recognized at fair value through profit or loss. This also includes trade receivables that are intended for sale based on a factoring agreement. These receivables are derecognized at fair value when they are sold. Alternatively, IFRS 9 allows equity instruments to be measured at fair value through other comprehensive income. On the individual case level, SGL Carbon does not currently apply this option to measure at fair value through other comprehensive income. Therefore, equity instruments such as securities are measured at fair value through profit or loss.

Financial assets are derecognized when the contractual rights to cash flows from the financial asset in question expire or terminate. Financial liabilities are derecognized when the liability has been repaid, that is, when all financial obligations specified in the agreement have been settled or definitively canceled or have expired. The difference between the carrying amount of the liability settled and the consideration paid is recognized in profit or loss.

Hybrid financial instruments

Financial instruments that contain both a liability and an equity component are recognized in various balance sheet items according to their nature. The financial instruments relevant in this context include convertible bonds. The fair value of conversion rights is already allocated to the capital reserves when a convertible bond is issued and is deducted from the bond liability at the same time. Fair values of conversion rights of bonds issued at below-market rates are determined using the capitalized difference from the interest-rate advantage. The interest expense of the debt component is calculated over the term of the bond from the market interest rate on the date of issue for a comparable bond without a conversion right. The difference between the interest calculated and the interest paid increases the carrying amount of the bond liability. The issuing costs of the convertible bond reduce the acquisition costs of the equity and debt components in direct proportion.

Derivative financial instruments

In accordance with IFRS 9, all derivative financial instruments are recognized at fair value on the balance sheet. Financial instruments are recognized on the balance sheet as soon as SGL Carbon becomes a contractual party to a financial instrument. Financial instruments are recognized on the trade date of the transaction. When a derivative contract is concluded, the Company determines whether it will be used as a hedge for future cash flows (a cash flow hedge). Cash flow hedges are used to hedge against fluctuations in future cash flows resulting from planned transactions that are highly probable to occur. The documentation of hedging relationships includes the objectives and strategy of risk management, the type of hedging relationship, the hedged risk, the description of the hedging instrument and the hedged item, as well as an assessment of the effectiveness criteria. Hedging relationships are regularly assessed to determine whether they were effective throughout the reporting period for which they were designated. Even though individual derivatives constitute a hedge from an economic perspective, they do not fulfill the hedge accounting criteria stipulated by IFRS 9.

Changes in the fair value of derivatives are recognized as follows:

1. Cash flow hedge: Only the change in the fair value of the forward exchange transaction is designated as the hedging instrument in cash flow hedging relationships. This effective portion of changes in the fair value of derivatives used to hedge future cash flows is

recognized outside profit and loss in accumulated other comprehensive income. The ineffective portion of the change in value of the hedging instrument is recognized in profit or loss. Since it is immaterial, the change in the fair value of cross currency basis spreads of the derivatives is not recognized separately. All amounts recognized in equity are subsequently reclassified to profit or loss if the hedged item also affects profit or loss.

2. Hedge of a net investment in a foreign operation: In the case of a hedge of a net investment in a foreign operation, the effective portion of gains and losses from changes in the value of the hedging instrument used is recognized in equity and outside profit or loss. The ineffective portion is recognized in profit or loss. Upon disposal of the investment, the changes in the fair value of the hedging instrument included in equity are recognized in profit or loss.
3. Standalone (no hedge relationship): Derivatives that do not qualify for hedge accounting are classified as held for trading and are recognized at fair value in profit or loss. Changes in fair value are therefore recognized on the income statement. If the trade date and the settlement date are not the same, the settlement date is used as the date for initial recognition.

See Note 27 for further information on financial instruments.

Impairment of financial assets

Loss allowances are recorded for expected credit losses which represent a forward-looking estimate of future credit losses and require material discretionary decisions. In general, a three-stage model must be followed for determination of expected credit losses and allocation of valuation allowances; this can be summarized as follows:

Stage 1: Upon recognition, all financial assets are assigned to Stage 1. A loss allowance is recognized in the amount of expected credit losses within the next twelve months.

Stage 2: When there is a material increase in the credit risk of a financial asset, but its credit quality is not impaired, it is transferred from Stage 1 to Stage 2. The recognized valuation allowances correspond to the lifetime expected credit losses in relation to the financial asset.

Stage 3: If a financial asset is credit-impaired or has already defaulted, it is transferred to Stage 3. The recognized loss allowance corresponds to the lifetime expected credit losses in relation to the financial asset. The effective interest income is calculated based on the net amount (gross amount less risk provisioning). Objective evidence indicating that a financial asset is credit-impaired includes being past due 45 days or more and additional information on material financial difficulties on the part of the debtor.

Cash and cash equivalents, along with time deposits, are allocated to Stage 1, since these are mainly only invested at banks and financial institutions with a low risk of default (investment grade rating: S&P AAA to BBB-).

SGL applies a simplified approach for trade receivables and contract assets that measures loss allowances based on lifetime expected credit losses.

Inventories

Inventories are valued at purchase or production cost using the weighted average cost method. Where required, the lower net realizable value is recognized. Net realizable value is determined, taking into account the expected sale prices less costs of completion and selling expenses and other factors relevant to sales. In addition to directly attributable costs, costs of conversion also include appropriate portions of material and production overheads. Directly attributable costs mainly include costs for personnel, including retirement benefits, depreciation/amortization and directly attributable costs of material. Interest on borrowings is not capitalized. Impairment expenses are recognized as costs of sales.

Liquidity

Liquidity includes cash and cash equivalents as well as time deposits. Cash and cash equivalents include cash and bank balances with an original term of less than three months. Bank deposits with an original term of more than three months are reported under time deposits.

Income tax expense

Tax positions are calculated taking into consideration the respective local tax laws, relevant court decisions and applicable tax authorities' views. Tax regulations can be complex and possibly subject to different interpretations of tax payers and local tax authorities. Different interpretations of existing or new tax laws as a result of tax reforms or other tax legislative procedures may result in additional tax payments for prior years and are taken into account based on management's considerations. IFRIC 23 clarifies the application of the recognition and measurement requirements of IAS 12 when there is uncertainty about the income tax treatment. For recognition and measurement, it is necessary to arrive at estimates and assumptions. To do this, decisions must be made regarding whether an estimate is created separately or together with other uncertainties, whether a probable or expected value is used for the uncertainty, and whether changes have occurred compared with the previous period, for example. The risk of detection is irrelevant for recognition of uncertain financial position items. The accounting is based on the assumption that the tax authorities are investigating the matter in question and that they have all the relevant information. There are no material effects on the consolidated financial statements of the Company.

In accordance with IAS 12, deferred tax assets and liabilities are determined for temporary differences between the tax base and their carrying amounts in the IFRS consolidated balance sheet as well as for tax loss carryforwards including unused tax depreciation, for interest not yet claimed for tax purposes and for unused tax credits. Deferred tax assets are recognized if, in the opinion of the Board of Management, it is more likely than not that sufficient taxable income will be available in the future to allow the deductible temporary differences and unused tax losses and interest carryforwards to be utilized. For this purpose, to the extent that there are insufficient deferred tax liabilities, forecasts of future taxable results are determined, based on the approved five-year planning calculation, which, among other things, also takes into account the impact of the expected geopolitical and economic environment on the business activities of SGL Carbon. As future business developments are uncertain and in part beyond the control of SGL Carbon, assumptions are required to estimate future taxable income and the timing of the realization of deferred tax assets. The uncertainty regarding future profits at SGL Carbon is accounted for by estimating the range of possible taxable profits. Uncertainty regarding future profits at SGL Carbon is accounted for by estimating the range of possible taxable profits and determining those amounts that are most likely to occur and therefore meet the "more likely than not" criterion. Estimates are adjusted in the period in which there is sufficient evidence for an adjustment. To the extent that the Company or tax group shows recent losses under cumulative consideration, deferred taxes arising from temporary differences and tax loss carryforwards are recognized only to the extent that either sufficient taxable temporary differences are available or persuasive evidence exists that there will be availability of sufficient taxable profit against which the unused tax losses can be utilized. SGL Carbon limits the reporting period to three years for each individual company, whereby the reporting year is included in this period. If the companies or a tax group have loss carryforwards, the reasons for the loss carryforwards in previous years are analyzed and examined to determine whether they are likely to recur in the future or were of a one-off nature. The change in deferred taxes on the balance sheet generally results in tax expenses and income. However, if items that result in a change in deferred taxes are recognized directly in a component of equity, the change in deferred taxes is also recognized directly in this component of equity.

Tax effects that may result from the future application of the regulations on global minimum taxation (Pillar Two) are not taken into consideration when determining the recognition of deferred tax assets and liabilities. The Company will apply these regulations throughout the Siemens Group from fiscal year 2024.

Accumulated other comprehensive income and accumulated profit/loss (Consolidated Statement of Changes in Equity)

In accordance with IFRS 9, unrealized gains or losses on financial derivatives used to hedge a future cash flow (cash flow hedges) or a net investment in a foreign operation are recognized in other comprehensive income under accumulated other comprehensive income, in addition to currency translation differences. In addition, actuarial gains and losses from defined benefit plans are also recognized directly in equity as accumulated profit/loss in the year in which they occur in the full amount. Accordingly, deferred taxes on the above items are also recognized in comprehensive income in the respective component of accumulated other comprehensive income.

Provisions for pensions and similar employee benefits

SGL Carbon maintains defined benefit plans in various countries based on the pensionable remuneration of employees according to their periods of service. These plans are funded in part through external pension funds and by contributions to a contractual trust agreement (CTA). Provisions for defined benefit plans are calculated using the projected unit credit method. The present value of the defined benefit obligation (DBO) is calculated with consideration for the expected future salary and pension trends. If the benefit entitlements are not covered by assets, the amount included in the "Provisions for pensions and similar employee benefits" item corresponds to the DBO. If the benefit entitlements are covered by assets, SGL Carbon offsets the fair value of the plan assets against the DBO and recognizes the net amount that was determined in “Provisions for pensions and similar benefits.” If the value of the assets exceeds the corresponding scope of the obligations (net assets value), an asset is recognized under other assets in the amount of the excess, if necessary after taking into account any asset ceiling.

The DBO is calculated on the reporting date using the maturity-equivalent interest rate for prime-rated corporate bonds. The assumptions used to calculate the DBO at the previous year’s balance sheet date apply to the determination of current service cost and interest income and the interest expenses for the following fiscal year. The net interest income or expense for a fiscal year is generally calculated by multiplying the discount rate for the respective fiscal year by the net asset value or net liability on the balance sheet date of the previous fiscal year and is recognized in the financial result. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are recognized directly in other comprehensive income in the period in which they occur, together with the attributable deferred taxes (accumulated profit/loss). The current service cost is classified as an operating expense. Negative past service cost due to a change in the pension plan and gains or losses from plan settlements are recognized immediately in profit or loss and allocated to other operating income or expenses.

If the information necessary for accounting for defined benefit plans is unavailable, obligations under defined benefit multi-employer plans are accounted for in the same way as obligations under defined contribution plans according to IAS 19.34. The obligations are determined by the amounts payable for the current period.

Some Group companies grant their employees defined contribution plans on the basis of statutory or contractual provisions, with payments being made to state or private pension insurance providers. With defined contribution plans, the employer does not enter into any obligations other than payment of contributions to an external pension provider. The amount of future pension benefits is based solely on the amount of contributions paid by the employer (and its employees, if applicable) to the external pension provider, including income from investment of these contributions. The amounts payable are expensed when the obligation to pay them arises and are reported as a component of operating expenses.

Actuarial valuations are based on material assumptions, including discount rates, expected salary and pension trends, acceptance rates of capital options and disability and mortality rates. Due to changing market, economic and social conditions, the underlying assumptions may differ from what will actually happen.

Other provisions

Other provisions are recognized when there is an obligation to third parties due to past events, it is likely that an outflow of resources with economic utility will be required in order to settle the obligation, and the amount of the obligation can be measured with sufficient reliability. Non-current provisions are discounted at the risk-free interest rate (if applicable, negative). See Note 29 for a description of the accounting treatment and the recognition of provisions for obligations in conjunction with management and employee participation plans.

SGL Carbon recognizes expenses for provisions for product warranties in cost of sales at the time of revenue recognition. The amount of the provision is determined on a case-by-case basis. In the measurement of the provision, SGL Carbon takes into account both experience from actual warranty expenses previously incurred and technical information about product weaknesses discovered during the design and testing phase. Provisions for restructuring measures are recognized to the extent that a detailed and formal restructuring plan has been prepared and communicated to the affected parties. Provisions for anticipated losses from onerous contracts are recognized when the economic benefits expected to be received from the contract are less than the unavoidable costs of meeting the obligations under the contract. The amount and probability of provisions are based on management estimates. Significant estimates and assumptions are also made to determine provisions for asset retirement obligations and decommissioning activities.

Recently issued new accounting rules

The following new standards or amendments are effective for reporting periods beginning on or after January 1, 2023:

- Amendments to IAS 1 and IFRS Practice Statement 2 – Disclosure of Accounting Policies
- Amendments to IAS 12 – Deferred Taxes Relating to Assets and Liabilities Arising from a Single Transaction
- Amendments to IAS 8 – Definition of Accounting Estimates

Their application did not have any impact on consolidated financial statements.

The following new or amended standards and interpretations have already been adopted by the IASB, but are not yet mandatory or have not yet been adopted into European law. The Company did not voluntarily apply the regulations before they were adopted:

- Amendments to IFRS 10 and IAS 28: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture
- Amendments to IAS 1: Classification of Liabilities as Current or Non-Current Liabilities with Ancillary Conditions
- Amendments to IFRS 16: Lease Liability in a Sale and Leaseback Transaction
- Amendments to IAS 7 and IFRS 7: Supplier Finance Arrangements
- Amendments to IAS 21: Lack of Convertibility of a Currency

The Company assumes that these changes will not have any material impact on the consolidated financial statements.

Impact of the planned introduction of global minimum taxation

SGL Carbon falls within the scope of the minimum taxation ("Pillar 2"). Pursuant to the legislation, the Company is obliged to pay a minimum tax for each country in which the Group operates at an effective tax rate of less than 15%. The Pillar 2 legislation will enter into force in Germany, the jurisdiction in which Carbon SE is based, from January 1, 2024. Since the Pillar 2 legislation had not yet entered into force at the reporting date, the Group is not currently subject to any tax burden in this respect. We are currently working with tax specialists to support the application of Pillar 2 legislation. Based on current knowledge, the Group estimates that Pillar 2 will not lead to an increase in current taxes. SGL Group has made use of the exemption for the recognition and disclosure of deferred tax information relating to Pillar 2 income taxes provided for in the amendment to IAS 12 published in May 2023 and adopted by the EU in November 2023.

4. Change in the scope of consolidation

In the 2023 fiscal year, SGL Carbon sold SGL CARBON INDIA Pvt. Ltd., Maharashtra, India, at carrying amounts as planned. This change had no material impact on the financial position and financial performance of SGL Carbon. The disposal of this company led to a negative effect on earnings from attributable cumulative currency differences of €1.6 million. SGL TECHNOLOGIES Zweite Beteiligung GmbH, Meitingen, and SGL TECHNOLOGIES Composites Holding GmbH, Meitingen, also ceased to exist as a result of intragroup mergers.

5. Sales revenue/functional costs

The breakdown of sales revenue by segment, region, customer industry and type of revenue recognition is presented in Note 28 in "Segment reporting."

Selected disclosures on the total cost method are provided below:

€m	2023	2022
Wages and salaries (including bonus)	–282.7	–279.1
Social security contributions, post-employment and other employee benefit costs (thereof for pensions: minus €12.3 million: 2022: minus €20.5 million)	–70.9	–76.5
Personnel expenses	**–353.6**	**–355.6**

Personnel expenses in the reporting year do not include any expenses for restructuring measures (previous year: € 1.7 million).

The employees worked in the following functions (average number of employees based on headcount):

Headcount	2023	2022
Production and auxiliary plants	3,704	3,641
Sales and marketing	320	337
Research and development	95	96
Administration, other functions	665	647
Total	**4,784**	**4,721**

The following table provides an overview of employee numbers by geographical region:

Headcount	2023	2022
Germany	2,087	2,056
Europe excluding Germany	1,391	1,357
North America	751	770
China	481	434
Rest of Asia	74	104
Total	**4,784**	**4,721**

Depreciation

Amortization and depreciation of intangible assets and property, plant and equipment totaled €60.2 million (previous year: €66.7 million). This includes amortization from the carryforward of the purchase price allocations of SGL Composites GmbH and SGL Composites Materials Germany GmbH, Meitingen, Germany (SGL Composites DE) and SGL Carbon Fibers America LLC, Moses Lake, USA (SGL Composites US) totaling €1.3 million (previous year: €5.9 million). Details on this can be found in Notes 12 and 13

Personnel expenses and amortization are included in all functional costs such as cost of sales, selling expenses, research and development costs and general and administrative expenses.

6. Other operating income/expense

Other operating income

€m	2023	2022
Grants received	13.5	6.4
Income from the release of other liabilities	4.0	-
Exchange-rate gains	1.6	4.6
Insurance compensations	0.1	3.6
Gains on the sale of intangible assets and property, plant and equipment	0.1	0.0
Miscellaneous other operating income	7.0	3.3
Total	**26.3**	**17.9**

The subsidies received mainly result from electricity price subsidies and electricity price brakes (particularly in Germany and France) totaling € 9.1 million as well as in the reporting year, as in the previous year, from grants for the development and industrialization of innovative anode materials made of synthetic graphite for use in lithium-ion batteries in the context of the second European IPCEI (Important Project of Common European Interest) program/EUBatIn (European Battery Innovation). The Company received a corresponding funding notification of €42.9 million in 2020. The approved grants will partially reimburse SGL Carbon for the amortization and depreciation of investments as well as the operating expenses in conjunction with the funding project over the term extending until 2028.

The derecognition through profit or loss of other liabilities results from compensation payments received in previous years for property, plant and equipment from a customer, which will no longer be paid out on the basis of a contractual agreement concluded in the 2023 financial year.

Other operating expenses

€m	2023	2022
Exchange-rate losses	–4.0	–5.1
Effect from attributtable cumulative translation differences (Prior year: Impairment due to measurement of assets included in the disposal group at fair value, including transaction costs)	–1.6	–8.9
Losses on the sale of other intangible assets and property, plant and equipment	–0.3	–0.5
Other operating expenses	–2.1	–0.9
Total	**–8.0**	**–15.4**

In the reporting year, losses from the disposal of SGL CARBON INDIA Pvt. Ltd. amounting to €1.6 million were reclassified from the currency translation reserve to the income statement. In the previous year, the value adjustments and transaction costs from signed sales of SGL CARBON INDIA Pvt. Ltd. of €2.9 million as well at the operating business in Gardena (USA) of €6.0 million were reported under this item. Details can be found in Note 20.

The currency effects reported as other operating income and expenses result from measurement of receivables and liabilities not denominated in the respective functional currency at the closing rate.

In addition, other operating income and expenses include a large number of individual items of low value.

7. Investments accounted for At-Equity

Result from investments accounted for At-Equity

€m	2023	2022
Share in the net result of the year	18.3	18.2
Thereof joint ventures	*18.1*	*16.3*
Thereof associates	*0.2*	*1.9*
Result from investments accounted for At-Equity	**18.3**	**18.2**

€m	Dec. 31, 23	Dec. 31, 22
Interests in joint ventures	57.5	49.4
Interests in associates	10.7	11.3
Carrying amount	**68.2**	**60.7**

Joint ventures
In the reporting year, SGL Carbon held a stake in the joint venture Brembo SGL Carbon Ceramic Brakes S.p. A., Stezzano, Italy (BSCCB). BSCCB develops and produces carbon-ceramic brake discs especially for sports cars and luxury vehicles. The following tables summarize the results of operations and the financial position of BSCCB as reported in each of its own financial statements (taking into account IFRS 15 effects). The table also shows the reconciliation of the summarized financial information to the carrying amount of SGL Carbon's stake in the BSCCB joint venture. SGL Carbon received dividend payments in the amount of €10.0 million from BSCCB in the reporting year (previous year: €15.0 million).

€m	2023	2022
Ownership interest	**50.0%**	**50.0%**
Income statement [1]		
Sales revenue	256.9	221.8
Amortization/depreciation on intangible assets and property, plant and equipment	–11.4	–10.9
Operating profit	49.6	56.0
Interest income	0.8	0.1
Interest expense	–0.7	–0.5
Income tax expense	–13.6	–12.4
Net result for the year	36.1	32.6
Share of SGL Carbon in the net result of the year (50%)	**18.1**	**16.3**
Share of SGL Carbon in the changes of other equity (50%)	–0.1	0.7
Total comprehensive income of the companies	18.0	17.0

[1] 100% values of the company

€m	Dec. 31, 23	Dec. 31, 22
Balance sheet [1]		
Non-current assets	87.8	64.3
Current assets	88.7	91.7
Thereof cash and cash equivalents	*4.6*	*27.6*
Non-current liabilities	17.4	19.2
Thereof financial debt	*9.8*	*11.8*
Current liabilities	51.3	45.3
Thereof financial debt	*2.4*	*2.3*
Net assets	**107.8**	**91.5**
Share of SGL Carbon in net assets (50%)	53.9	45.8
Goodwill/customer base	3.6	3.6
Carrying amount of material joint ventures	**57.5**	**49.4**

[1] 100% values of the company

Associates

€m	2023	2022
Associates		
Carrying amount of interests in associates Dec. 31	10.7	11.3
Share in the net result of the year/ comprehensive income	0.2	1.9
Share of SGL Carbon in change of other comprehensive income [1]	0.2	3.3

[1] Relates to the share in the fair value of cash flow hedges (net of tax)

All associated companies have a fiscal year that corresponds to the calendar year, with the exception of MCC-SGL Precursor Co. Ltd., which uses a fiscal year ending March 31.

8. Impairment losses

€m	2023	2022
Impairment losses of property, plant and equipment	–49.5	-
Total	**–49.5**	**-**

Impairment losses

The triggering event for the impairment test in the second quarter of 2023 was the sharp decline in demand for carbon fibers for the wind industry since the beginning of the year, an important market segment for the CGU Carbon Fibers, combined with a later than previously expected recovery in demand. The recoverability of the assets was then reviewed on the basis of adjusted detailed planning. Since the recoverable amount (value in use) of €214.7 million was below the carrying amount of the assets, an impairment loss of €44.7 million was recognized on property, plant and equipment. The CGU is part of the CF (Carbon Fibers) business unit.

Impairment test assumptions

The forecast cash flows for the CGU Carbon Fibers were adjusted for impairment test purposes on the basis of an updated five-year plan. The value in use was determined using a pre-tax discount rate of 12.55% (December 31, 2022: 12.9%), an average annual growth rate for the years 2024-2030 in sales and EBITDA of 7.6% and 53.2% respectively, and a long-term growth rate of 1%. A detailed planning period of more than five years was used as a basis to be able to map the qualification periods of the products in the growing market. In addition, the planning horizon was limited to the expected remaining useful life of the primary production facilities.

Furthermore, an impairment loss of €4.8 million was recognized on property, plant and equipment in the CS business unit due to the early termination of a project with an automotive customer.

9. Financial result

€m	2023	2022
Interest in other securities, other interest and similar income	**5.1**	**0.9**
Interest on financial liabilities and other interest expense [1]	–20.7	–17.9
Interest component of additions to provisions for pensions	–7.6	–3.0
Imputed interest convertible bonds [1]	–4.2	–2.9
Imputed interest on lease liabilities [1]	–0.8	–1.4
Imputed interest on contract liabilities	–2.5	0.0
Interest expense	**–35.8**	**–25.2**
Interest expense, net	**–30.7**	**–24.3**
Amortization of refinancing costs [1]	–3.1	–3.1
Foreign currency valuation of intercompany loans	0.0	–1.5
Effect resulting from the early redemption of the convertible bond 2018/2023	0.0	2.9
Other financing expenses	–0.4	–0.3
Other financing result	**–3.5**	**–2.0**
Financial result	**–34.2**	**–26.3**

[1] Total interest expense from financial instruments: minus € 28.8 million (2022: minus € 25.3 million)

Interest expenses include, in particular, interest from the convertible bond 2022/2027 issued in September 2022 for €101.9 million, the convertible bond 2023/2028 issued in June 2023 for €118.7 million with an interest coupon of 5.75% in each case and the utilization of the variable-interest Term Loan Facility since July 2023 in the amount of €75 million. The corporate bond with an interest rate of 4.625% was repaid in July 2023 and is therefore only included in the interest expenses for 2023 on a pro rata basis. The non-cash imputed interest on the convertible bonds is established by approximating the below-market coupon with the comparable market interest rate at the time the convertible bonds were issued. Due to higher actuarial interest rates for the income statement, interest expenses for pensions in the 2023 financial year amounted to €7.6 million, significantly higher than the previous year's expenses of €3.0 million.

10. Income tax expense

In fiscal year 2023, tax income of €19.3 million was generated (previous year €31.3 million), resulting in an effective tax rate of minus 87% (previous year: minus 33%). This tax income was attributable to a high positive valuation adjustment of deferred tax assets in the amount of €30.8 million in the fourth quarter of 2023 and €41.8 million in the previous year, which was due in particular to the sustained overcoming of the loss history and the reassessment of deferred tax assets in the tax group in the USA. In 2023, this is based on a significant increase in the forecasts for future tax results compared to the previous year's budget. The positive revenue prospects are supported by the investments in sustainable business fields and long-term customer contracts already initiated in previous years and systematically continued in the reporting year. Depending on the future earnings performance, the carrying amount of deferred tax assets for which SGL Carbon recognized negative valuation adjustments in prior years may continue to recover over time. This may lead to further positive valuation adjustments in the future (or, in the event of poor business performance, to negative valuation adjustments), with a corresponding impact on the effective tax rate.

The regulations on global minimum taxation (Pillar 2) are not currently implemented in local law in any of the jurisdictions in which SGL Carbon operates. The Company expects to apply Pillar 2 throughout the Group from fiscal year 2024 and does not expect any increase in current taxes.

The breakdown of income taxes between Germany and abroad is as follows:

€m	2023	2022
Current income taxes		
Germany	0.4	–0.9
Other countries	–12.1	–9.6
Total	**–11.7**	**–10.5**
Deferred taxes		
Germany	0.0	0.0
Other countries	31.0	41.8
Total	**31.0**	**41.8**
Total sum	**19.3**	**31.3**

A corporate income tax rate of 15%, a solidarity surcharge of 5.5% on corporate income tax, and a trade tax rate of 15% were used to calculate deferred taxes for the domestic companies in 2023 and 2022. To calculate the deferred taxes, a total tax rate of 30.4% (previous year: 29.8%) was applied to the domestic companies. The country-specific tax rates were used to calculate the deferred taxes for the foreign companies, for example, for the USA a federal tax rate and a combined tax rate of 21% and 22.8%, respectively. Deferred tax assets and liabilities in Germany and abroad are measured at the tax rates that are expected to apply when the asset is realized or the liability is settled.

The actual tax expense includes taxes for previous years from domestic and foreign companies amounting to €1.7 million as income (previous year: €0.9 million as income). Deferred taxes included tax income of €2.4 million (previous year: €8.4 million) in connection with the development of temporary differences and tax income of €28.6 million (previous year: €33.4 million) from the recognition of previously unrecognized deferred taxes on tax loss carryforwards and interest carryforwards.

Based on a tax rate of 30.4%, the following table reconciles the expected tax expense with the effective tax expense recognized:

€m	2023	2022
Result from continuing operations before income taxes	**22.4**	**94.6**
Expected tax expense at 30.4% (prior year: 29.8%)	**–6.8**	**–28.2**
Increase/decrease in income tax charge from:		
Income adjustments	–2.0	–0.5
Change in expected tax rate	–1.7	1.6
Changes in valuation allowances/recognition adjustments	25.4	50.6
Tax effect on investments accounted for At-Equity	5.6	5.4
Tax free income	0.2	0.2
Tax rate changes	–1.0	0.8
Tax from prior periods	0.4	0.2
Other	–0.8	1.2
Effective tax income	**19.3**	**31.3**

The income adjustments primarily relate to non-deductible operating expenses. A reduction due to tax rates that differ mainly takes into account effects from withholding taxes and local taxes as well as taxation differences in Germany and abroad due to varying income tax rates. The changes in valuation allowances and recognition corrections take into account the change in unrecognized deferred tax assets based on an assessment of their future usability.

In the reporting year, the current tax expense was reduced by €10.5 million (previous year: €9.5 million) due to the utilization tax losses not yet recognized.

11. Earnings per share

Earnings per share are calculated by dividing the net profit attributable to SGL Carbon shareholders by the average number of shares outstanding in the reporting year. Diluted earnings per share are based on the assumption that outstanding debt instruments can be converted into shares (convertible bonds). The following table contains the calculation of earnings per share for fiscal years 2023 and 2022:

Reconciliation between basic to diluted earnings per share

€m	Overall potentially dilutive financial instruments 2023	Dilutive financial instruments used for the calculation 2023	Share of net result attributable to the shareholders of the parent company 2023	**Share of net result attributable to the shareholders of the parent company 2022**
Numerator for basic earnings per share (share of net result attributable to the shareholders of the parent company)	**41.0**	**41.0**	**41.0**	**126.9**
plus: increase of the income by the interest costs of the convertible bonds	14.1			9.0
Numerator for diluted earnings	**55.1**	**41.0**	**41.0**	**135.9**
Number of shares				
Denominator for basic earnings per share (weighted average number of shares)	**122,270,977**	**122,270,977**	**122,270,977**	**122,270,977**
Potentially dilutive securities (weighted average, in each case)				
Convertible bond 2018/2023 (see Note 24)				9,320,764
Convertible bond 2022/2027 (see Note 24)	12,233,186	0	0	2,044,450
Convertible bond 2023/2028 (see Note 24)	6,266,130			
Stock Appreciation Rights (see Note 29)	246,720	0	0	0
Denominator for potentially diluted earnings per share	**141,017,013**	**122,270,977**	**122,270,977**	**133,636,191**
Thereof to be included for dilution (adjusted weighted average)		**122,270,977**	**122,270,977**	**133,636,191**
Basic earnings per share (€)		0.34	0.34	1.04
Diluted earnings per share (€)		0.34	0.34	1.02

12. Intangible assets

€m	Industrial rights, software and similar rights	Customer relationships	Capitalized development costs	Goodwill	Total
Historical costs					
Balance at Jan. 1, 23	73.3	10.9	17.3	67.6	169.1
Foreign currency translation	–0.6	0.0	0.0	–0.6	–1.2
Reclassifications	0.1	0.0	0.0	0.0	0.1
Additions	1.1	0.0	0.1	0.0	1.2
Disposals	–0.2	0.0	0.0	0.0	–0.2
Balance at Dec. 31, 23	**73.7**	**10.9**	**17.4**	**67.0**	**169.0**
Accumulated depreciation					
Balance at Jan. 1, 23	64.0	6.4	16.2	44.6	131.2
Foreign currency translation	–0.4	0.0	0.0	0.0	–0.4
Additions	2.1	0.7	0.2	0.0	3.0
Disposals	–0.2	0.0	0.0	0.0	–0.2
Balance at Dec. 31, 23	**65.5**	**7.1**	**16.4**	**44.6**	**133.6**
Net carrying amount at Dec. 31, 23	**8.2**	**3.8**	**1.0**	**22.4**	**35.4**
Historical costs					
Balance at Jan. 1, 22	72.4	52.7	17.6	67.2	209.9
Foreign currency translation	0.5	0.0	–0.1	0.4	0.8
Reclassifications	0.6	0.0	–0.2	0.0	0.4
Additions	1.7	0.0	0.0	0.0	1.7
Disposals	–1.9	–41.8	0.0	0.0	–43.7
Balance at Dec. 31, 22	**73.3**	**10.9**	**17.3**	**67.6**	**169.1**
Accumulated depreciation					
Balance at Jan. 1, 22	63.3	42.9	16.0	45.1	167.3
Foreign currency translation	0.7	0.0	–0.1	–0.5	0.1
Additions	1.9	5.3	0.3	0.0	7.5
Disposals	–1.9	–41.8	0.0	0.0	–43.7
Balance at Dec. 31, 22	**64.0**	**6.4**	**16.2**	**44.6**	**131.2**
Net carrying amount at Dec. 31, 22	**9.3**	**4.5**	**1.1**	**23.0**	**37.9**

Industrial protective rights, software rights, and similar rights mainly comprise purchased and internally developed computer software.

The table below shows the key assumptions used in the impairment testing of CGUs to which goodwill has been allocated for determination of the values in use at October 1:

€m	Recognized goodwill	Discount rate before tax	Average annual growth rate [2] (sales revenue/EBITDA)	Long-term growth rate
Oct. 01, 23				
Graphite Specialties [1]	21.3	12.0%	7%/9%	1.0%
Process Technology	1.9	12.0%	2%/1%	1.0%
Okt. 01, 22				
Graphite Specialties [1]	22.8	11.3%	6%/6%	1.0%
Process Technology	1.9	11.1%	4%/10%	1.0%

[1] Graphite Specialties is a CGU of GS
[2] Basis: 2024-2028 resp. 2023-2027

SGL Carbon performed its mandatory annual impairment test at October 1. As the recoverable amount determined on the basis of the value in use was estimated to be higher than their carrying amount, no impairment was identified for either of the CGUs with allocated goodwill.

The value in use is primarily determined by the present value of the perpetual annuity, which is particularly sensitive to changes in the assumptions regarding the level of sales and EBITDA, the non-current growth rate, and the discount rate. The discount factors reflect the current market assessment of the specific risks of each CGU and are based on the CGUs' weighted average cost of capital. The recoverable amount (value in use) of Graphite Specialties and Process Technology significantly exceeds their respective carrying amounts.

13. Property, plant and equipment

€m	Land, land rights and buildings	Plant and machinery	Office furniture and equipment	Assets under construction	Investment property	Total
Historical costs						
Balance at Jan. 1, 23	486.4	1,191.8	69.4	56.9	13.5	1,818.0
Foreign currency translation	–5.2	–10.9	–0.5	–0.1	–0.3	–17.0
Reclassifications	2.8	32.7	0.5	–36.5	0.3	–0.2
Additions	7.5	23.3	1.5	51.1	2.5	85.9
Additions to right-of-use assets	10.9	1.7	1.3	0.0	0.0	13.9
Disposals	–1.9	–6.2	–2.4	–0.1		–10.6
Balance at Dec. 31, 23	**500.5**	**1,232.4**	**69.8**	**71.3**	**16.0**	**1,890.0**
Accumulated depreciation/impairment losses						
Balance at Jan. 1, 23	295.2	913.6	61.4	1.6	1.2	1,273.0
Foreign currency translation	–3.2	–7.8	–0.4	0.0	0.1	–11.3
Reclassifications	0.0	0.6	0.0	–0.8	0.0	–0.2
Additions	14.1	39.4	3.7	0.0	0.0	57.2
Impairment losses [1)]	15.3	29.9	0.2	4.1	0.0	49.5
Disposals	–1.9	–6.2	–2.3	0.0	0.0	–10.4
Balance at Dec. 31, 23	**319.5**	**969.5**	**62.6**	**4.9**	**1.3**	**1,357.8**
Net carrying amount at Dec. 31, 23	**181.0**	**262.9**	**7.2**	**66.4**	**14.7**	**532.2**
Historical costs						
Balance at Jan. 1, 22	514.2	1,307.3	76.4	36.2	24.1	1,958.2
Foreign currency translation	8.2	13.6	0.2	–0.3	–0.1	21.6
Reclassifications	–6.5	14.0	0.6	–16.6	8.1	–0.4
Additions	1.3	10.9	1.2	37.8	0.0	51.2
Additions to right-of-use assets	1.5	0.4	1.2	0.0	0.0	3.1
Disposals	–32.3	–154.4	–10.2	–0.2	–18.6	–215.7
Balance at Dec. 31, 22	**486.4**	**1,191.8**	**69.4**	**56.9**	**13.5**	**1,818.0**
Accumulated depreciation						
Balance at Jan. 1, 22	307.6	1,018.3	66.6	0.8	6.6	1,399.9
Foreign currency translation	3.5	8.2	0.2	0.0	0.0	11.9
Reclassifications	0.0	–1.2	–0.1	0.0	1.3	0.0
Additions	13.9	39.7	4.8	0.8	0.0	59.2
Disposals	–29.8	–151.4	–10.1	0.0	–6.7	–198.0
Balance at Dec. 31, 22	**295.2**	**913.6**	**61.4**	**1.6**	**1.2**	**1,273.0**
Net carrying amount at Dec. 31, 22	**191.2**	**278.2**	**8.0**	**55.3**	**12.3**	**545.0**

[1)] Refer to Note 8

In the reporting year, borrowing costs directly attributable to the construction or production of property, plant and equipment were capitalized in the amount of €2.1 million (previous year: €1.2 million), with application of an interest rate of 6.0% (previous year: 6.0%).

The Company carried out an impairment test for the CF CGU at June 30, 2023; for further details, see Note 8. Due to the changed planning assumptions in the fourth quarter of 2023 ("triggering event" in accordance with IAS 36.12) compared to the planning assumptions from the first half of 2023, a new impairment test was carried out for the CF CGU at December 31, 2023 in accordance with IAS 36; this did not result in any need for impairment. The revised planning assumptions include a further slowdown in demand for carbon fibers from the wind industry and a change in the product mix for the detailed planning period 2024-2030. A detailed planning period of longer than 5 years was used as a basis in order to be able to reflect the qualification periods of the products in the growing market. In addition, the planning horizon was limited to the expected remaining useful life of the main production facilities. The value in use was calculated using a pre-tax discount factor of 12.7%, an average annual revenue growth rate for the years 2024-2030 of 14.6% and a long-term growth rate of 1%. EBITDA is expected to increase to a mid to high double-digit million figure by 2030. There is a risk of a value adjustment if the assumptions, particularly EBITDA, change.

Leases

Leases are presented in accordance with the explanations given in Note 3, "Summary of material accounting policies," in the “Leasing” section.

Leases as lessee

SGL Carbon has entered into lease agreements for a variety of rights equivalent to real property as well as for buildings, technical equipment, machinery, furniture, and office equipment which the Company uses in its operations. Lease agreements for real estate generally have terms of between 1 and 15 years. For technical equipment and machinery as well as for furniture and office equipment, the term is usually between 3 and 10 years. SGL Carbon leases IT equipment with contractual terms of between 1 and 3 years, and in some cases the terms extend up to 5 years. These leases are generally either short-term and/or based on objects of low value. SGL Carbon has decided not to recognize either right-of-use assets or lease liabilities for these leases. Information on leases for which SGL Carbon is the lessee is presented below.

Right-of-use assets

The following table shows the carrying amounts of the recognized right-of-use asset and the changes during the reporting period and the previous year:

€m	Land, land rights and buildings	Plant and machinery	Office furniture and equipment	Total
Balance at Jan. 1, 23	7.6	9.2	1.6	18.4
Additions to right-of-use assets	10.9	1.7	1.2	13.8
Depreciation	–4.1	–2.1	–1.1	–7.3
Impairment losses [1]	–0.7	–1.7		–2.4
Foreign currency translation	–0.1			–0.1
Balance at Dec. 31, 23	**13.6**	**7.1**	**1.7**	**22.4**

[1] See Note 8

€m	Land, land rights and buildings	Plant and machinery	Office furniture and equipment	Total
Balance at Jan. 1, 22	9.8	11.2	1.7	22.7
Additions to right-of-use assets	1.5	0.4	1.2	3.1
Depreciation	–3.7	–2.1	–1.3	–7.1
Disposal of right-of-use assets	–0.5	0.0	0.0	–0.5
Reclassifications	0.6	0.0	0.0	0.6
Foreign currency translation	–0.1	–0.3	0.0	–0.4
Balance at Dec. 31, 22	**7.6**	**9.2**	**1.6**	**18.4**

The maturity analysis of lease liabilities is presented in Note 24.

Amounts recognized on the income statement:

Lease agreements in accordance with IFRS 16

€m	2023	2022
Income from subleases of right-of-use assets	0.0	0.5
Expenses for short-term leases	–2.1	–2.2
Expenses for leases for low value assets	–2.8	–2.7
Depreciation of right-of-use assets	–7.3	–7.1
Interest expenses from lease liabilities	–0.8	–1.4

SGL Carbon's cash outflows for leases totaled €13.4 million in 2023 (2022: €14.4 million). In addition, the Company reported non-cash additions to right-of-use assets and lease liabilities of €13.8 million in 2023 (previous year: €3.1 million).

Leases as lessor

From the lessor's perspective, all leases are classified as operating leases. SGL Carbon has entered into operating leases for its investment property portfolio, which consists of open space and certain office and production buildings.

The future minimum lease payments receivable under non-cancelable operating leases at December 31 are as follows:

€m	2023	2022
Less than one year	1.8	0.0
One to two years	0.3	0.0
Total	**2.1**	**0.0**

Investment property

The land and buildings of former business units held by SGL Carbon as investment property are pooled in real estate companies in the USA and Germany. With the sale of the business activities at the Gardena site (USA), the local SGL Carbon company will remain the owner of the land and buildings in Gardena and are leased to the purchaser of the business activities for a contractually fixed period of a maximum of three years. During this period, the purchaser of the business activities is obliged to relocate the divested business activities to another site. SGL Carbon has classified these leases as operating leases, because not all of the risks and rewards associated with ownership have been transferred. The fair values of the land and the land value of the land held for construction purposes were determined on the basis of a market analysis and an external expert opinion and total €35 million (previous year: €63 million).

In fiscal year 2023, rental income from this land totaled €2.6 million (previous year: €0.0 million). Expenses of €0.6 million (previous year: €0.1 million) were incurred. The lease receivable under the lease to be received after the balance sheet date amounts to €0.2 million (previous year: €0.0 million) and is due in less than one year.

The fair values disclosed correspond to level 3 of the fair value hierarchy of IFRS 13.

14. Other non-current assets

This item mainly includes financial assets in the form of securities held at international subsidiaries to cover pension entitlements, but which do not meet the definition of plan assets according to IAS 19.8 and are therefore not deducted from the present value of the defined benefit obligation (see Note 22).

15. Inventories

€m	Dec. 31, 23	Dec. 31, 22
Raw materials and supplies	99.5	99.7
Work in progress	172.3	150.6
Finished goods and merchandise	101.8	73.7
Total	**373.6**	**324.0**

Cost of sales in fiscal 2023 included consumption of inventories amounting to €761.0 million (previous year: €787.1 million), which was recognized as an expense. The total amount of inventories recognized at net realizable value at December 31, 2023, amounts to €31.1 million (previous year: €33.6 million). Write-downs on inventories of €3.2 million (previous year: €0.4 million) increased the total cost of sales recognized. Reversals of write-downs of €2.4 million (previous year: €3.0 million) due to sales reduced the cost of sales.

16. Trade receivables and contract assets

€m	Dec. 31, 23	Dec. 31, 22
From customers	67.5	111.3
From investments accounted for At-Equity	3.7	3.6
Trade receivables	**71.2**	**114.9**
Contract assets	79.7	67.5
Trade receivables and contract assets	**150.9**	**182.4**

Additional information on the extent of credit risks included in trade accounts receivable and contract assets is provided in Note 27 under "Credit risks."

17. Other receivables and other assets

€m	Dec. 31, 23	Dec. 31, 22
Positive fair values of financial instruments	2.1	2.4
Security deposit from the factoring program	4.5	1.5
Other financial assets	**6.6**	**3.9**
Other tax claims	7.2	13.8
Advance payments for leases and insurance premiums	7.8	7.1
Prepayments to pension funds	1.5	4.9
Income tax assets	2.5	4.2
Other receivables due from suppliers	3.9	3.9
Receivables due from employees	0.7	0.7
Other receivables due from investments accounted for At-Equity	0.0	0.1
Other assets	2.9	3.7
Other receivables and other assets	**33.1**	**42.3**

18. Liquidity

Liquidity amounting to €199.4 million (previous year: €227.3 million) consist of cash and cash equivalents and 65.0 million (previous year: €0.0 million) from time deposits with an original maturity of more than three months.

19. Deferred taxes

At December 31, 2023, there are unrecognized domestic loss carryforwards of €500.4 million (previous year: €483.1 million) for corporate income tax, €366.6 million (previous year: €353.7 million) for trade tax, and €58.3 million (previous year: €52.5 million) for interest carryforwards. In addition, there are unrecognized foreign loss carryforwards, mainly in the USA, for federal income tax purposes in the amount of USD 144.6 million (previous year: USD 322.3 million) and in the United Kingdom in the amount of GBP 131.3 million (previous year: GBP 113.9 million GBP). In addition, at December 31, 2023, there are unrecognized interest carryforwards and capital losses in the United States totaling USD 0.3 million (previous year: USD 16.2 million). Under current legislation, the loss carry-forwards in Germany and the United Kingdom can be carried forward indefinitely. In the United States, loss carryforwards that arose on or before December 31, 2017, will expire starting in 2029. For losses incurred in tax years ending after December 31, 2017, the loss can be carried forward indefinitely.

Deferred tax assets have not been recognized for the following items at December 31, 2023, and December 31, 2022, as their utilization is subject to uncertainty:

€m	Dec. 31, 23	Dec. 31, 22
From recognition and measurement differences	705.6	739.5
From tax loss carry forwards and tax credits	1,493.0	1,595.6
Total	**2,198.6**	**2,335.1**

Deferred tax assets are offset against deferred tax liabilities if they relate to income taxes levied by the same taxation authority and there is a legal right of set-off of a current tax asset against an actual tax liability that is current. On the consolidated statement of financial position, no distinction is made between current and non-current deferred tax assets and liabilities.

Deferred tax assets and liabilities are recognized either in profit or loss or directly in equity, depending on the underlying circumstances. The items recognized directly in equity are shown in the "Consolidated statement of comprehensive income."

Development of deferred taxes:

€m	Dec. 31, 23	Dec. 31, 22
Balance sheet recognition of deferred taxes	71.3	42.5
Difference compared to previous year	28.8	39.4
thereof:		
through profit and loss	31.0	41.8
Offset against other comprehensive income	0.0	–1.3
Currency differences	–2.2	–1.1

Development of deferred taxes on loss carryforwards:

€m	Dec. 31, 23	Dec. 31, 22
Deferred taxes on loss carryforwards before valuation allowances:	328.2	320.2
Difference compared to previous year	8.0	1.4
thereof:		
Usage/Addition	10.6	–1.5
Currency differences	–2.6	2.9

The (gross) deferred tax assets and liabilities relate to loss carryforwards and differences between IFRS and the tax basis as follows.

€m	Deferred tax assets Dec. 31, 23	Deferred tax liabilities Dec. 31, 23	Deferred tax assets Dec. 31, 22	Deferred tax liabilities Dec. 31, 22
Non-current assets	161.7	–32.6	159.5	–27.1
Inventories	12.2	–1.0	12.3	–0.2
Receivables/other assets	16.7	–19.9	8.9	–11.5
Provisions for pensions and similar employee benefits	86.6	–49.0	100.9	–66.7
Other provisions	4.4	–0.8	4.9	–1.0
Liabilities/other liabilities	15.9	–16.1	39.2	–38.1
From tax loss carry forwards, interest carry forwards and tax credits	328.2	-	320.2	-
Gross amount	**625.7**	**–119.4**	**646.0**	**–144.6**
Valuation allowances	–435.0	0.0	–458.9	0.0
Netting	–117.5	117.5	–143.2	143.2
Carrying amount	**73.2**	**–1.9**	**43.9**	**–1.4**

SGL Carbon recognizes in equity the cumulative deferred tax effects on items recognized outside profit or loss totaling €44.7 million gross (previous year: €44.7 million gross), primarily from pension provisions. SGL Carbon has not recognized deferred tax liabilities for accumulated profits of subsidiaries, as these profits are to be reinvested indefinitely.

20. Assets held for sale/liabilities associated with assets held for sale

The assets and liabilities of the operational activities of SGL Composites Inc. at the Gardena site (USA) classified as assets held for sale at December 31, 2022, were sold to an external buyer on February 16, 2023, and are therefore no longer included in the consolidated financial statements.

On April 28, 2023, the sale of SGL CARBON INDIA Pvt. Ltd., Maharashtra (Pune, India) was completed. The currency translation effects of approximately €1.6 million previously recognized in equity were recognized as an expense at the time of disposal.

The income and expenses for both locations of approximately minus €1.0 million for the period from January 1, 2023, to closing are included in the segment presentation in the Corporate reporting segment.

21. Equity

Issued capital

At December 31, 2023, the issued capital of the parent company SGL Carbon SE amounted to €313,194,183.68 (previous year: €313,194,183.68) and was divided into 122,341,478 (previous year: 122,341,478) no-par value ordinary shares, each with a notional value of €2.56. The shares are traded on various markets in Germany (including Frankfurt am Main).

Authorized capital

Pursuant to Section 3 (6) of the Articles of Association, the Board of Management is authorized to increase the share capital, with the approval of the Supervisory Board, by up to a total of €125,276,160.00 by issuing new no-par value shares on one or more occasions (Authorized Capital 2023). The Authorized Capital 2023 was created by the Annual General

Meeting of May 9, 2023, and can be exercised until May 8, 2028. In principle, the shareholders will be entitled to preemptive subscription rights if the Authorized Capital 2023 is utilized. However, preemptive rights can or must be disapplied for fractional amounts, for the benefit of holders of bonds with warrants, conversion rights, or mandatory conversion issued, or to be issued, shares issued in return for contributions in kind to acquire companies, parts of companies or investments in companies, and, with the approval of the Supervisory Board, when issuing shares up to 10% of the issued share capital in the event of a capital increase against cash contributions. However, the exclusion of subscription rights for authorized capital 2023 is no longer possible to a relevant extent due to the issue of the convertible bond in 2023.

Conditional capital

The Annual General Meeting has approved conditional capital increases in recent years to service the share-based management incentive plans (see also Note 29) and to service convertible bonds (see also Note 24).

Conditional capital at December 31, 2023

Articles of association	Date of resolution	€/Number of shares	Capital increase via:	Disapplication of pre-emptive rights/execution of the capital increase
Section 3 –7	May 9, 2023	€31,319,040.00.00 =12,234,000 shares	Servicing the convertible bond, issued 2023	Share capital increase will be executed if participants make use of their subscription rights.
Section 3 –9	May 17, 2017	€31,319,040.00.00 =12,234,000 shares	Servicing the convertible bond, issued 2018	Convertible 2018 bond no longer outstanding, therefore conversion into shares no longer possible
Section 3 –10	May 10, 2019	€31,319,040.00.00 =12,234,000 shares	Servicing the convertible bond, issued 2022	Share capital increase will be executed if participants make use of their subscription rights.
Section 3 –12	April 29, 2009	€4,875,517.44 = 1,904,499 shares	SAR-Plan [1] 2010-2014	Share capital increase will be executed if participants make use of their subscription rights.

s

Changes in share capital

Number of shares	2023	2022
Balance at January 1,	122,341,478	122,341,478
Balance at December 31,	**122,341,478**	**122,341,478**

At December 31, 2023, 70,501 (previous year: 70,501) treasury shares were held at a carrying amount of €180,482.56 (previous year: €180,482.56).

Disclosures on capital management

The Group’s capital management involves the interest of shareholders, employees, and other stakeholders. The aim is to ensure the long-term going concern of the Company and to achieve a return on capital employed that is in line with market expectations.

Capital management includes both equity and debt components. Key financial indicators that SGL Carbon has set itself as a medium-term target include net financial debt, the leverage ratio, the equity ratio, and return on capital employed. Net financial debt is defined as interest-bearing loans at their nominal value less cash, cash equivalents, and time deposits. The leverage ratio is the ratio of net financial debt to adjusted EBITDA.

Return on capital employed (ROCE) is the ratio of adjusted EBIT to the average amount of capital employed.

The key capital management figures developed as follows:

€m	Dec. 31, 23	Dec. 31, 22
Net financial debt	115.8	170.8
Equity attributable to the shareholders of the parent company	605.3	569.3
ROCE $_{\text{EBIT pre}}$	11.3%	11.3%
Equity ratio	41.1%	38.5%
Leverage ratio	0.70	1.00

Net financial debt developed as follows:

€m	Dec. 31, 23	Dec. 31, 22
Carrying amount of current and non-current financial liabilities	282.8	377.4
Remaining imputed interest for convertible bonds	27.8	17.0
Accrued refinancing cost	4.6	3.7
Total financial debt (nominal amount)	**315.2**	**398.1**
Cash and cash equivalents	134.4	227.3
Time deposits	65.0	-
Net financial debt	**115.8**	**170.8**

SGL Carbon aims to achieve a leverage ratio of ≤ 2.5, an equity ratio of ≥ 30%, and a return on capital employed of ≥ 10%. These goals were met at December 31, 2023, and will continue to be met.

In its dealings with lenders, SGL Carbon has an obligation to comply with certain covenants with respect to its lenders and bondholders, such as the Company's ability to service the debt. Adherence to these covenants is monitored continuously. All covenants were met in the 2023 financial year. Financial risks are continuously monitored and controlled using certain key performance indicators and regular internal reports. This includes, among other things, the internal financing framework for subsidiaries and its utilization, monitoring the hedged currency exposure, the change of actual cash flows, the change in the market value of the derivatives portfolio, and the maintaining and utilization of guaranteed credit lines.

With the repayment of the corporate bond in July 2023, SGL Carbon discontinued the previously externally commissioned ratings from the rating agencies Moody's and Standard & Poor's. At the time the ratings were discontinued, the rating agencies had issued the following Group ratings to SGL Carbon:

Rating agency	Rating	Date of the rating
Moody's	B2 (Outlook: positive)	June 23
Standard & Poor's	B (Outlook: stable)	March 23

Change of control- agreement

At December 31, 2023, the Company had two convertible bonds that will mature in 2027 (nominal amount €101.9 million) and 2028 (nominal amount €118.7 million) outstanding. Both convertible bonds entitle the bondholders in the event of a change of control to demand repayment of any outstanding bonds at par value (plus interest accrued up to that point) on a date to be determined by the Company which shall be no less than 40 and no more than 60 calendar days after the date on which the change of control is made known. The bonds may also be converted into shares, in which case the bondholders will receive an improved conversion ratio, which will vary depending on the time remaining until the bonds mature. A change of control is deemed to occur for both convertible bonds if one or more persons acquire control over the Company, where control means direct or indirect, legal and/or economic ownership of shares (within the meaning of Sections 29 (2), 30 WpÜG) which together grant more than 30% of the voting shares in the Company. For both convertible bonds, the improved conversion ratio will also apply in the case of a public takeover offer if, at the end of the acceptance period, the acceptance rate of the offer exceeds 30% of voting shares, any minimum acceptance threshold for the offer in excess of this amount has also been reached, and no further offer conditions remain unfulfilled (other than conditions that can legally be met after the acceptance period has expired).

In the event of a change of control, the lenders of the Company's syndicated loan (with a total of €175 million, of which €75 million is drawn at the end of 2023) have the right to terminate their respective participation in the syndicated loan. A change of control exists when one or more persons (by means of acting in concert pursuant to Section 2(5) WpÜG) acquire control over the Company, whereby control means (i) the right to directly or indirectly exercise more than 30% of the voting rights of the Company at a Annual General Meeting, (ii) the right to appoint all or the majority of the Board of Management, (iii) to issue binding instructions to the Board of Management regarding the operational and financial strategy of the Company, or (iv) the direct or indirect ownership of more than 50% of the Company’s share capital. However, it does not constitute a change of control if control is acquired by Dr. h.c. Susanne Klatten, BWM AG or Volkswagen AG or companies controlled by them.

Furthermore, the agreement regarding the joint venture Brembo SGL Carbon Ceramic Brakes S.p.A., in which SGL Carbon SE holds 50% of the share capital, provides for the right of the other party to tender its shares in this joint venture in the event of a change of control on one side (put option) or to acquire the shares of the party subject to a change of control in the joint venture (call option). A change of control exists (i) if a competitor of one of the parties to the joint venture directly or indirectly acquires 25% or more of the voting rights in the parties to the joint venture or SGL Carbon SE or (ii) if another third party directly or indirectly acquires 50% or more of the voting rights in one of the parties to the joint venture or SGL Carbon SE.

Other

Under IFRS, the assessment of whether or not an obligation exists to prepare consolidated financial statements must also be performed at the level of the potential subsidiary. IFRS 10 requires all enterprises to assess whether or not they are required to prepare consolidated accounts on the basis of a single model, the control concept, regardless of whether control is founded on corporate law, contractual provisions or the economic substance of the arrangement. The concept therefore also applies to parent-subsidiary relationships that are based on voting rights or derive from contractual agreements (please also refer to Note 3, "Consolidation principles"). On the basis of these principles, SGL Carbon regularly assesses whether SGL Carbon SE is controlled by another parent company. SGL Carbon currently has no information that indicates that SGL Carbon SE is a subsidiary of any of its shareholders. SGL Carbon also has no indication that voting rights are exercised jointly or in concert by any shareholders. SGL Carbon SE therefore prepares consolidated financial statements as the ultimate parent company of the SGL Carbon Group.

SGL Carbon SE, as the parent company of SGL Carbon, reported net income for 2023 of €68.8 million in accordance with the German Commercial Code (HGB). Taking into account the loss brought forward of minus €670.1 million, the accumulated loss totaled €601.3 million. In accordance with the German Stock Corporation Act, dividends may only be paid out of the accumulated net profit reported by SGL Carbon SE in its annual financial statements prepared pursuant to the provisions of the German Commercial Code.

22. Provisions for pensions and similar employee benefits

The outstanding defined benefit plans are primarily based on company contributions. These plans are only influenced to a limited extent by longevity, inflation, and salary increases. The company's most important plans are covered by assets in external, restricted pension funds. These plans are managed in accordance with local law via trust agreements with the respective pension fund in the interests of the beneficiaries.

Germany

In Germany, pension benefits are granted through SGL Grundversorgung Plus (GV Plus), Zusatzversorgung Plus (ZV Plus) and frozen plans with legacy commitments. Under GV Plus, regardless of their date of entry, all employees receive an employer-funded basic allowance, equal to 1% of eligible income up to the contribution ceiling, which is invested in investment funds. Employees can convert up to 4% of their eligible income into contributions. For as long as the employee makes these personal contributions, SGL Carbon pays a monthly employer's contribution in addition to the basic allowance up to a maximum of 5% of the contributory income. The contributions made by SGL and the employees are transferred to a contractual trust arrangement (CTA) and invested in stocks (investment funds). The benefits from this plan are mainly based on the nominal company contributions and investment income from the corresponding plan assets, with the employer guaranteeing the total amount of contributions paid in (nominal value preservation).

For members of senior management, the Company grants contributions for income above the BBG in the amount of a defined contribution rate of pensionable income (ZV Plus). The contributions are subject to a minimum rate of return, which is the maximum rate for life insurance policies plus one percentage point (1.25% p.a.). In addition, the amounts are contributed as assets to a contractual trust arrangement (CTA). When a benefit becomes payable, the lump sum or pension is based on the higher of the guaranteed minimum return or the current individual value of the assets. Senior management also has the option of converting contributions from the Short-Term Incentive Plan and/or the Long-Term Incentive Plan (see Note 29) in favor of ZV Plus (deferred compensation).

Both plans are covered by assets via contractual trust arrangements (CTAs). There are no legal or regulatory minimum funding requirements for CTAs in Germany.

The assets covering the pension rights under AV Plus (concluded in 2022), GV Plus, and ZV Plus are invested via a third-party investment firm as follows.

in % at Dec. 31, 23 (Dec. 31, 22)	AV-Plus	GV-Plus	ZV-Plus
Asian equity fund	1.3% (1.5%)	4.6% (5.2%)	1.2% (1.0%)
European small cap equities fund	2.2% (2.2%)	7.5% (7.4%)	7.1% (7.1%)
European equities fund	32.4% (31.3%)	12.4% (12.3%)	13.8% (13.7%)
International equities fund	10.6% (10.1%)	30.8% (29.3%)	40.1% (39.4%)
European fixed-income fund	53.5% (54.9%)	44.7% (45.8%)	37.8% (38.8%)

AV Plus was the predecessor plan to GV Plus and is also covered by assets via contractual trust structures (CTA). This plan was transferred to GV Plus in the previous year; the entitlements from the contributions that had expired by the time of the transfer remain unaffected.

With the introduction of AV Plus (or GV Plus) and ZV Plus, the effect of salary increases was eliminated for benefits from the frozen plans with legacy commitments. However, SGL Carbon continues to bear the risk for the frozen plans from the investment of assets, changes in interest rates, inflation and longevity. Furthermore, beneficiaries of legacy commitments have the option of converting their entitlements into a lump-sum (capital option). This enables active and former employees (or their surviving spouses) to receive a capital sum either as a one-time payment or in ten yearly installments, instead of a retirement or survivor's pension. The probability of utilization for the different payout options was derived from the empirical acceptance rates for comparable cases.

All other pension obligations for German employees are covered by a funded multi-employer plan (frozen in the previous year), which is accounted for as a defined contribution plan. The reason for this accounting rule is that the plan assets cannot be allocated to the participating companies. The pension fund benefits are funded based on the actuarial equivalence principle [Bedarfsdeckungsverfahren]. Based on the legally prescribed actuarial calculation for 2022, the obligations of the pension fund are fully funded. For 2023, it has been assumed that the pension obligations continue to be funded by the corresponding assets. The vested rights of active members and the rights of former members and pensioners will continue to be financed and administered by the multi-employer plan. There is therefore currently no obligation to make future contributions to the plan (previous year: €5.2 million).

USA

In the USA, SGL Carbon maintains pension plans that are closed to new entrants and to the earning of further entitlements. In the US pension fund, plan assets are managed in trusts and invested solely for the purpose of providing future pension benefits to the beneficiaries, thereby minimizing the asset management costs. SGL Carbon regularly reviews the expected return on the plan assets of the North American funded pension plan. The plans are subject to the funding requirements of the Employee Retirement Income Security Act of 1974 (ERISA), as amended. There is a requirement to ensure a minimum funding level of 80% for defined benefit plans in order to avoid restrictions on benefit payments. Employers can make contributions over and above this regulatory requirement at their own discretion. The annual contributions are calculated by independent actuaries. The effective funding ratio for the US pension plan at December 31, 2023, was 101% (previous year: 100%).

The effective rate of return on plan assets in the US in 2023 was 8.3% (previous year: minus 23.5%) above the expected return based on the discount rate of 5.09% at December 31, 2022.

SGL Carbon's investment policy is geared more heavily toward fixed income bonds and cash than more speculative investments in equities and participating interests. Plan assets were invested as follows at December 31:

in %	Dec. 31, 23	Dec. 31, 22
Fixed-interest securities	79.2%	85.3%
Equities and interest in companies	13.7%	7.8%
Real estate	2.5%	4.3%
Hedge funds	1.6%	1.6%
Bank deposits	3.0%	1.0%

Almost all shares were quoted on an active market. The fair value of the fixed-interest securities was based on prices provided by price service agencies. The fixed-income securities are traded on active markets and almost all fixed-income securities have an investment grade rating.

In addition, post-employment healthcare plans and an additional pension plan for senior managers, both of which are unfunded, exist in the USA. The future benefit obligations in relation to healthcare plans are calculated using actuarial methods based on prudent estimates of the relevant parameters. The calculation parameters may be influenced to a significant degree by the assumptions with respect to cost increases in the healthcare sector.

Trend assumptions in relation to healthcare were as follows:

Health care trend rated - medical	Dec. 31, 23	Dec. 31, 22
Trend for next year	8.3%	5.6%
Ultimate trend	4.5%	4.5%
Year ultimate trend reached	2033	2027
Health care trand rates - prescription drugs		
Trend for next year	8.8%	6.1%
Ultimate trend	4.5%	4.5%
Year ultimate trend reached	2033	2027

At the end of the 2023 fiscal year, an increase (decrease) of 1 percentage- point in the assumed growth rate for healthcare costs would have led to an increase (decrease) in the present value of the defined benefit obligation of €0.2 million (€0.0 million) and an increase (decrease) in the service cost and interest cost of €0.2 million (€0.0 million).

Actuarial assumptions

In addition to biometric assumptions and the current long-term market interest rate, assumptions regarding future salary- and pension increases are also taken into account. The following parameters are used in Germany and the USA, the most significant countries:

	German plans		US plans	
	2023	2022	2023	2022
Discount rate at Dec. 31	3.30%	3.80%	4.90%	5.09%
Projected pension increase at Dec. 31	2.20%	2.25%		
Expected return on plan assets in fiscal year	3.20%	3.80%	4.90%	5.09%
probability of acceptance of capital option	55%	55%		
Duration (years)	11.5	11.7	13.0	13.0

The disability tables used in Germany were SGL-specific tables, with a disability trend based on the Heubeck 2018G mortality tables.

Sensitivity analyses

A change of half a percentage point in any of the above assumptions (+/- 5 percentage points for the lump sum option) would increase or decrease the DBO as follows:

	Change in DBO			
in million €	Dec. 31, 23		Dec. 31, 22	
	Increase	Decrease	Increase	Decrease
Discount rate (+/- 0.5%-pts)	–15.7	21.4	–15.6	17.2
Projected pension increase (+/- 0.5%-pts)	9.7	–9.1	9.7	–8.9
Probability of acceptance of capital option (+/- 5%-pts)	–1.3	1.3	–1.3	1.3

The sensitivities reflect the change in the DBO caused by changed assumptions only, with all other assumptions remaining the same.

Change in defined benefit plans

The change in pension obligations relating to direct commitments and post-employment healthcare obligations, the change in plan assets and the funding status of the pension plans are described in the table below.

The funded status for 2023 was as follows:

€m	Germany 2023	USA 2023	Other 2023	Total 2023
Present value of the defined benefit obligation at beginning of year	240.4	76.0	9.5	325.9
Service cost	6.4	0.2	0.3	6.9
Interest cost	9.0	3.7	0.3	13.0
Actuarial gains (–)/losses (+)	12.4	0.9	–0.3	13.0
thereof: experience adjustments	13.6	1.3	–0.9	14.0
thereof: change in actuarial assumptions	–1.2	–0.4	0.0	–1.6
Past service cost due to plan amendments (including curtailments)	0.7	0.0	0.0	0.7
Benefits paid	–14.9	–3.8	–1.2	–19.9
Other changes	2.7	0.1	0.0	2.8
Currency differences		–2.6	0.0	–2.6
Present value of the defined benefit obligation at end of year [1)]	**256.7**	**74.5**	**8.6**	**339.8**
Fair value of plan assets at beginning of year	64.2	58.8	5.2	128.2
Actual return on plan assets	4.3	4.7	0.0	9.0
Employer contributions	5.6	1.5	0.0	7.1
Contributions of the beneficiaries	2.8	0.2	0.0	3.0
Benefits paid	–2.8	–3.8	–0.7	–7.3
Currency differences		–2.1	0.0	–2.1
Fair value of plan assets at end of year [2)]	**74.1**	**59.3**	**4.5**	**137.9**
Funded status at Dec. 31	**182.6**	**15.2**	**4.1**	**201.9**
Adjustments due to asset ceiling	1.7	0.0	0.0	1.7
Amount recognized	**184.3**	**15.2**	**4.1**	**203.6**
Termination benefits		0.3	2.2	2.5
Provisions for pensions and similar employee benefits	**184.3**	**15.5**	**6.3**	**206.1**

1) Of which €3.9 million relate to post-retirement care benefits
2) This item also includes assets of €5.5 million to cover pension entitlements recognized as other non-current assets

The funded status for 2022 was as follows:

€m	Germany 2022	USA 2022	Other 2022	Total 2022
Present value of the defined benefit obligation at beginning of year	287.3	94.8	10.9	393.0
Service cost	4.7	0.2	0.6	5.5
Interest cost	3.1	2.9	0.1	6.1
Actuarial gains (–)/losses (+)	–51.3	–24.1	–0.8	–76.2
thereof: experience adjustments	–56.2	–24.1	–0.8	
thereof: change in actuarial assumptions	4.9	0.0	0.0	
Past service cost due to plan amendments (including curtailments)	5.4	0.0	0.0	5.4
Benefits paid	–10.4	–3.9	–1.4	–15.7
Other changes	1.6	0.2	0.0	1.8
Currency differences	0.0	5.9	0.1	6.0
Present value of the defined benefit obligation at end of year [1]	**240.4**	**76.0**	**9.5**	**325.9**
Fair value of plan assets at beginning of year	68.1	74.3	6.3	148.7
Reclassification	0.4	0.0	0.0	0.4
Actual return on plan assets	–7.1	–18.3	0.1	–25.3
Employer contributions	6.2	1.7	0.0	7.9
Contributions of the beneficiaries	1.6	0.2	0.0	1.8
Benefits paid	–5.0	–3.9	–1.2	–10.1
Currency differences	0.0	4.8	0.0	4.8
Fair value of plan assets at end of year [2]	**64.2**	**58.8**	**5.2**	**128.2**
Funded status at Dec. 31	**176.2**	**17.2**	**4.3**	**197.7**
Reclassifications/Adjustments due to asset ceiling	2.0			2.0
Amount recognized	**178.2**	**17.2**	**4.3**	**199.7**
Termination benefits	0.0	0.4	2.2	2.6
Provisions for pensions and similar employee benefits	**178.2**	**17.6**	**6.5**	**202.3**

[1] Of which €4.8 million relate to post-retirement health care benefits
[2] This item also includes assets of €5.2 million to cover pension entitlements recognized as other non-current assets

The consolidated statement of comprehensive income includes the following amounts:

€m	Germany 2023	USA 2023	Other 2023	Total 2023	Total 2022
Actuarial gains (+)/losses (–) from pensions [1]	–11.9	–0.9	0.3	–12.5	74.2
Actuarial gains (+)/losses (–) on other long-term benefits	0.0		–0.1	–0.1	0.5
Actual return on plan assets	4.3	4.6	0.0	8.9	–25.3
Less expected return on plan assets	–2.4	–2.8	–0.2	–5.4	–3.1
Currency effects	0.0	–0.1	0.0	–0.1	0.3
Share of investments accounted for At-Equity in other comprehensive income	–0.1	0.0	0.0	–0.1	0.7
Gains (+)/losses (–) for the reporting year (gross) recognized in equity	**–10.1**	**0.8**	**0.0**	**–9.3**	**47.3**
Tax effect	3.1	–0.2	0.0	2.9	–13.0
Valuation allowances on deferred taxes	–3.1	0.2	0.0	–2.9	11.8
Gains (+)/losses (–) for the reporting year (net) recognized in equity	**–10.1**	**0.8**	**0.0**	**–9.3**	**46.1**

[1] Thereof adjustments due to asset ceiling in accordance with IAS 19.64 of €0.5 million

The cumulative amount of actuarial losses recognized in equity (accumulated results) was €178.4 million net (previous year: €168.4 million).

In fiscal year 2023, the following developments affected the defined benefit obligation: an actuarial loss of €14.7 million resulting from the decrease of the discount factor for pension plans (previous year: actuarial gain of €93.6 million) and an increase of €1.6 million (previous year: decrease of €4.9 million) mainly due to experience adjustments resulting from the differences between the actuarial assumptions and the actual outcomes. The previous year was also affected by an actuarial loss of €12.5 million due to the increase in the pension trend for the German plans from 1.25% to 2.25%. Pension provisions with a maturity of less than one year amounted to €16.3 million (previous year: €21.0 million).

SGL Carbon has pension and healthcare obligations of €112.9 million (previous year: €97.9 million) in relation to funded pension plans. Pension obligations under unfunded pension plans were €226.9 million (previous year: €228.0 million).

To cover the pension obligations to members of the Board of Management, the Company has entered into pension liability insurance arrangements with three large insurance companies. At December 31, 2023, the asset values included in the pension provisions totaled €24.1 million (previous year: €25.3 million). The expected return corresponds to the discount rate for the pension obligations. In fiscal year 2023, contractually agreed pension payments of €0.4 million were made to the pension liability insurance arrangements (previous year: €0.4 million). The benefits under the insurance arrangements have been pledged to the relevant members of the Board of Management. The pension expense for active members of the Board of Management is detailed in Note 26.

The breakdown of pension expenses for 2023 and 2022 is as follows:

€m	Germany 2023	USA 2023	Other 2023	Total 2023	Total 2022
Current service costs	6.4	0.2	0.3	6.9	5.5
Past service cost due to plan amendments (including curtailments)	0.7	0.0	0.0	0.7	5.4
Service cost	**7.1**	**0.2**	**0.3**	**7.6**	**10.9**
Interest cost	9.0	3.7	0.3	13.0	6.1
Expected return on plan assets	–2.4	–2.8	–0.2	–5.4	–3.1
Net interest expense	**6.6**	**0.9**	**0.1**	**7.6**	**3.0**
Pension expenses for defined benefit plans	**13.7**	**1.1**	**0.4**	**15.2**	**13.9**
Pension expenses for defined contribution plans	0.4	2.2	2.2	4.8	9.5
Pension expenses	**14.1**	**3.3**	**2.6**	**20.0**	**23.4**

At December 31, 2023, the anticipated future pension benefit payments by SGL Carbon to its former employees or their surviving dependents were as follows:

Pension payments to employees

Year	€m
2023	19.9
Due 2024	16.3
Due 2025	16.7
Due 2026	17.7
Due 2027	19.7
Due 2028	22.4
Due 2029-2033	99.2

Employer contributions to plan assets and pension liability insurance arrangements for 2023 are estimated at €6.0 million (previous year: €4.7 million).

SGL Carbon's contributions to the state plans recognized in profit or loss amounted to a total of €19.3 million in 2023 (previous year: €19.0 million).

23. Other provisions

€m	Taxes	Personnel	Warranties, price reductions and guarantees	Restructuring	Other	Total
Balance at Jan 1, 23	2.1	50.7	6.4	15.0	18.8	93.0
Utilizations	–1.8	–24.2	–1.3	–5.4	–7.0	–39.7
Releases		–1.3	–0.3	–0.4	–1.0	–3.0
Additions	1.6	25.5	7.6	0.5	6.7	41.9
Other changes/exchange differences		0.1	–0.5		–0.2	–0.6
Balance at Dec. 31, 23	**1.9**	**50.8**	**11.9**	**9.7**	**17.3**	**91.6**
thereof with a maturity of up to one year	*1.9*	*39.3*	*11.7*	*9.1*	*17.1*	*79.1*
thereof with a maturity of more than one year	*0.0*	*11.5*	*0.2*	*0.6*	*0.2*	*12.5*

Provisions for personnel expenses mainly comprise provisions for variable compensation of €28.5 million (previous year: €31.0 million), provisions for anniversary benefits of €2.1 million (previous year: €1.8 million), and provisions for outstanding vacation and accumulated time credits of €9.6 million (previous year: €9.1 million).

Provisions for warranties, price reductions and guarantees include provisions for price reduction risks, including bonuses, volume discounts, and other reductions in price.

Restructuring provisions disclosed at the balance sheet date comprise the remaining renovation costs for Frankfurt-Griesheim and one other site totaling €8.9 million (previous year: €10.1 million) as well as personnel-related obligations arising due to the restructuring and transformation program.

24. Liabilities

€m	Dec. 31, 23	Remaining term to maturity > 1 year	Dec. 31, 22	Remaining term to maturity > 1 year
Interest-bearing loans				
Corporate bond	-	-	240.0	240.0
Nominal value of convertible bonds	*220.6*	*220.6*	*133.5*	*101.9*
Less IFRS equity component	*–27.8*	*–27.8*	*–17.0*	*–16.6*
Convertible bonds	192.8	192.8	116.5	85.3
Term Loan Facility	75.0	75.0	-	-
Bank loans, overdrafts and other financial liabilities	19.6	16.6	24.6	20.8
Refinancing costs	–4.6	–4.6	–3.7	–3.6
	282.8	**279.8**	**377.4**	**342.5**
Trade payables and contract liabilities	**218.5**	**64.2**	**161.1**	**17.4**
Other financial liabilities				
Derivative financial instruments	0.4	0.2	0.4	0.0
Lease liabilities	26.0	18.6	19.9	14.5
Miscellaneous other financial liabilities	4.1	0.0	4.9	0.0
	30.5	**18.8**	**25.2**	**14.5**
Income tax liabilities	5.4	0.0	7.2	0.0
Miscellaneous other liabilities	20.9	0.0	31.3	4.5
Other liabilities	**56.8**	**18.8**	**63.7**	**19.0**
Total	**558.1**	**362.8**	**602.2**	**378.9**

Interest-bearing loans

Convertible bonds
In June 2023, SGL Carbon SE completed the placement of a non-subordinated and unsecured convertible bond (convertible bond 2023/2028). The total nominal amount of the convertible bond maturing in 2028 is €118.7 million. The convertible bond has a term of five years and matures on June 28, 2028. It is repaid at 100% of the nominal amount. The initial conversion price was set at €9.7051, representing a premium of 25% on the reference price of €7.7641. The interest rate is 5.75% p.a. and is payable semi-annually in arrears on June 28 and December 28, with the first payment due on December 28, 2023. Based on the current conversion price, full conversion would result in the issue of 12.2 million shares. As the largest shareholder of SGL Carbon, SKion GmbH holds a nominal amount of €25 million in the convertible bond 2023/2028. The fair value of the conversion rights (€14.9 million) was taken to the capital reserve upon issue of the convertible bond and simultaneously deducted from the convertible bond liability.

SGL Carbon used the net proceeds from the placement of the convertible bond, together with the €75 million Term Loan Facility drawn in July and available cash, to repurchase the €237.4 million 4.625% corporate bond (maturing 2024).

On March 31, 2023, SGL Carbon SE redeemed convertible bonds early with a scheduled maturity of September 2023 at their total nominal value of €31.6 million. This financial instrument has thus been repaid in full.

Summary of convertible bonds

€m	Volume of issue	Outstanding volume	Carrying amount at Dec. 31, 23	Market price [1] Dec. 31, 23	Coupon % p.a.	Issue price
Convertible bond 2022/2027	101.9	101.9	86.7	105.3	5.750%	100.0%
Convertible bond 2023/2028	118.7	118.7	102.2	119.9	5.750%	100.0%

[1] Corresponds to level 1 of the fair value hierarchy of IFRS 13

The conversion price of the convertible bonds changed as follows:

€	Conversion price Dec 31, 23	Original conversion price per share	Change
Convertible bond 2022/2027	8.33	8.33	0.00
Convertible bond 2023/2028	9.71	9.71	0.00

Please see Note 3 “Hybrid financial instruments” for a description of the accounting treatment for convertible bonds and their separation into an equity- component and a debt component.

The weighted cash-effective average interest rate for financial liabilities based on their nominal amounts was 5.32% p.a. in 2023. (previous year: 4.38% p.a.). Including the non-cash imputed interest cost on the convertible bonds, the weighted average effective interest rate was 6.57% p.a. in 2023. (previous year: 5.20% p.a.). At the balance sheet date, bank loans, overdrafts, and other financial liabilities amounted to €19.6 million (previous year: €24.6 million). As in the previous year, these bore interest at fixed rates and were secured by land charges.

Syndicated credit facility

In March 2023, SGL Carbon reached an agreement with selected core banks on an early extension of its undrawn, syndicated €175 million credit facility maturing in January 2024. The agreement maintains the total volume of the facility at €175 million, subdivided into a credit line of €100 million for general business use and a Term Loan Facility of €75 million to refinance capital market liabilities. Both credit lines are secured (see Note 25) and have a term until 2026; they each include an ESG component and provide for a margin adjustment for the achievement of certain ESG targets.

The agreed credit margin varies depending on the Company’s leverage ratio. The terms of the facility include financial covenants in respect of certain financial indicators and other financial restrictions.

Trade payables and contract liabilities

Trade payables and contract liabilities totaled €218.5 million at December 31, 2023 (previous year: €161.1 million). As in the previous year, they were primarily due to unrelated third parties. Of the total, €154.3 million (previous year: €143.7 million) was due for payment within one year. Trade payables include contract liabilities of €116.5 million (previous year: €62.1 million). These concern prepayments received from customers on contracts for which revenue is essentially recognized over a set period of time. In der Berichtsperiode wurden 31,5 Mio. € Erlöse erfasst, die zu Beginn der Periode im Saldo der Vertragsverbindlichkeiten enthalten waren.

Other liabilities

At December 31, 2022, other financial liabilities include lease liabilities of €26.0 million (previous year: €19.9 million).

Miscellaneous other financial liabilities include of €4.1 million (previous year: €4.9 million) include, in particular, accrued interest for the outstanding convertible bond and a liability from the current factoring program.

Miscellaneous other liabilities totaled €20.9 million at December 31, 2023 (previous year: €31.3 million) and mainly included payroll and church tax liabilities of €7.9 million (previous year: €7.8 million), social security liabilities of €0.1 million (previous year: €0.1 million), other tax liabilities of €1.5 million (previous year: €6.8 million), and deferred income of €5.1 million (previous year: €10.5 million).

The table below shows all contractually agreed payments for the repayment of principal and payment of interest on recognized financial liabilities, including derivative financial instruments, at December 31, 2023.

€m	2024	2025	2026	2027	2028	More than five years
Non-derivative financial liabilities						
Convertible bond 2022/2027	5.9	5.9	5.9	106.1		
Convertible bond 2023/2028	6.8	6.8	6.8	6.8	122.1	
Term Loan Facility	2.4	2.4	76.2			
Liabilities due to banks	3.6	3.5	3.4	2.7	1.6	7.0
Lease liabilities	8.3	6.7	5.5	2.4	1.2	2.3
Trade payables	102.0					
Miscellaneous other financial liabilities	4.1					
Derivative financial liabilities	0.4					
Total	**133.5**	**25.3**	**97.8**	**118.0**	**124.9**	**9.3**

Significant changes relative to the figures for the previous year resulted from the issue of the 2023/2028 convertible bond and the early repayment of both the 2018/2023 convertible bond and the corporate bond.

Financial liabilities were determined using undiscounted contractual cash flows for future fiscal years.

The table below shows the development of liabilities from financing activities:

€m	Balance at Jan 1, 23	Additions	Repayments	Effect of foreign exchange rate changes	Releases	Imputed interest/amortisation	Balance at Dec. 31, 23
Corporate bond	240.0		–240.0				-
Convertible bond 2018/2023	31.6		–31.6				-
Convertible bond 2022/2027	101.9						101.9
Convertible bond 2023/2028		118.7					118.7
Term Loan Facility		75.0					75.0
Bank loans, overdrafts and other financial liabilities	24.6		–5.0				19.6
Interest-bearing loans (nominal amount)	**398.1**	**193.7**	**–276.6**	**0.0**	**0.0**	**0.0**	**315.2**
Remaining imputed interest for the convertible bond	–17.0	–14.9			–0.1	4.2	–27.8
Refinancing costs	–3.7	–4.0				3.1	–4.6
Interest-bearing loans (carrying amount)	**377.4**	**174.8**	**–276.6**	**0.0**	**–0.1**	**7.3**	**282.8**
Lease liabilities	19.9	13.8	–8.5	0.0		0.8	26.0
Total liabilities from financing activities	**397.3**	**188.6**	**–285.1**	**0.0**	**–0.1**	**8.1**	**308.8**

25. Contingent liabilities/Other financial obligations

Other financial obligations in connection with purchase orders for approved capital expenditure on property, plant and equipment amounted to €55.9 million at December 31, 2023 (previous year: €32.4 million). Some of these capital expenditure projects extend beyond one year. The main investment projects are explained in the Group management report in the section on the financial position, under "Capital expenditure, depreciation and amortization." Furthermore, there were purchase obligations for services in the amount of €6.1 million at December 31, 2023 (previous year: €9.4 million).

There were no contingent liabilities for investments accounted for At-Equity or other guarantee obligations at the end of 2023 (previous year: €10.0 million).

SGL Carbon secures the raw materials and energy required for production through procurement contracts with key suppliers. These agreements are normally for one year, include minimum quantities to be purchased by SGL Carbon and are fulfilled by physical delivery. The prices for the supplies are based on a base price that is adjusted for variable components. In the 2023 fiscal year, a long-term contract was also concluded until 2029 for the purchase of a primary material with a purchasing volume of €207 million over the entire term.

A number of agreements to provide collateral have also been signed with lenders in conjunction with the financial debt and credit lines. These agreements are restricted to share pledge agreements and/or corporate guarantees for a selected number of Group companies. The shares of the following companies serve as collateral: SGL Carbon GmbH, SGL Carbon Beteiligung GmbH, SGL Technologies GmbH, SGL Composites Materials Germany GmbH, SGL Composites LLC (renamed SGL Carbon Fibers America LLC in January 2023), SGL Composites GmbH, SGL Graphite Solutions Polska sp. z o.o., SGL Battery Solutions Polska sp. z o.o., and SGL Carbon LLC. Of the liabilities to banks, a total of €19.6 million (previous year: €24.6 million) was secured by a land charge at December 31, 2023. Guarantees amounting to €27.8 million (previous year: €29.9 million) were issued by banks for payment, advance payment, warranty, and contract performance guarantees of SGL Carbon. In our opinion, there are currently no indications of any claims arising from the aforementioned contingent liabilities.

Various lawsuits, court proceedings and legal claims are either pending or may be initiated in the future. This includes legal action arising in connection with alleged defects in SGL Carbon products, product warranties, and environmental protection issues. Tax risks may also arise as a result of the SGL Carbon group structure. Litigation is subject to considerable uncertainty; the outcome of individual cases cannot be predicted with any certainty. There is a reasonable probability that individual cases could be decided against SGL Carbon. Identifiable risks have been adequately covered by recognizing appropriate provisions. SGL Carbon is not exposed to any material lawsuits or legal disputes other than those for which a provision has been made. SGL Carbon therefore expects no material contingent liabilities at the present time.

26. Related party transactions

Joint ventures and associates

SKion GmbH, Bad Homburg, Germany, holds a share of approximately 28.55% in SGL Carbon SE according to notifications pursuant to the German Securities Trading Act (WpHG). No transactions for the sale of goods or services were conducted with SKion GmbH. SKion GmbH holds a nominal amount of € 25 million in the convertible bond 2023/2028.

In fiscal years 2023 and 2022, SGL Carbon maintained business relations within its normal course of business with a number of joint ventures and associates, related to sales of products and services and the rental of production and administrative buildings as well as administrative cost allocations. The transactions took place at market conditions. Collateral is reported under other financial obligations, see Note 25. Please refer to Note 7 for information on joint ventures and associates.

The table below shows the volume of transactions with related companies:

2023

	Sales of goods	Sales of services	Purchases of goods	Purchases of services	Receivables at Dec. 31	Loans at Dec. 31	Liabilities at Dec. 31
Joint ventures	23.8	11.1	0.0	0.0	3.6	0.0	–0.1
Associates	0.0	0.1	–50.5	0.0	0.1	0.0	–5.9
Total	**23.8**	**11.2**	**–50.5**	**0.0**	**3.7**	**0.0**	**–6.0**

2022

	Sales of goods	Sales of services	Purchases of goods	Purchases of services	Receivables at Dec. 31	Loans at Dec. 31	Liabilities at Dec. 31
Joint ventures	21.6	10.2	0.0	0.0	3.7	0.0	–6.7
Associates	0.0	0.1	–84.6	0.0	0.0	0.0	–3.4
Total	**21.6**	**10.3**	**–84.6**	**0.0**	**3.7**	**0.0**	**–10.0**

Related persons

Related persons include the members of the Board of Management and the Supervisory Board.

Remuneration of the Board of Management
Remuneration of the members of the Board of Management in office during the fiscal year comprised:

€m	2023	2022
Fixed remuneration	1.1	1.1
Fringe benefits	0.1	0.1
Total fixed remuneration	**1.2**	**1.2**
One-year variable remuneration	1.2	1.4
Multi-year variable remuneration	1.2	1.2
Total variable remuneration	**2.4**	**2.6**
Total remuneration	**3.6**	**3.8**

Board of Management remuneration includes salaries, in-kind benefits and contributions to a defined contribution retirement plan.

The DBO of the pension commitments to active members at December 31 was €1.3 million (previous year: €0.9 million), service cost amounted to €0.4 million (previous year: €0.4 million)

At December 31, 2023, net amounts of €2.0 million were outstanding to active members of the Board of Management (previous year: €1.4 million).

These consist of provisions for annual bonuses. The LTI plans granted in the fiscal year and still running for the fiscal year for the active and former members of the Executive Board are shown in the following table:

Tranche	Allocation value in € at Dec 31, 22	Grant in € in 2023	Number of PSU at grant
LTI 2020-2023	1,765,823		382,212
LTI 2021-2024	1,190,000		314,815
LTI 2022-2025	1,190,000		153,945
LTI 2023-2026		1,190,000	166,433
Total	**4,145,823**	**1,190,000**	**1,017,405**

For further information on PSUs, please refer to Note 29.

Former Board of Management members and their surviving dependents received total compensation within the meaning of Section 314 No. 6a HGB in the amount of €7.2 million (previous year: €2.5 million). At December 31, 2023, pension provisions (DBO) for former Board of Management members amounted to €49.6 million (previous year: €52.2 million), of which €24.2 million (previous year: €25.6 million) is covered by reinsurance policies.

The remuneration of the members of the Supervisory Board comprised basic remuneration plus additional remuneration for committee work and totaled €0.7 million (previous year: €0.6 million), including attendance fees.

In addition, employee representatives on the Supervisory Board received remuneration of €304 thousand (previous year: €379 thousand) within the framework of their employment contracts.

No members of the Board of Management or the Supervisory Board received any loans or advances from SGL Carbon.

27. Additional disclosures on financial instruments

The following table shows the reconciliation of balance sheet items to the classes and measurement categories of financial instruments:

€m	Measurement category under IFRS 9	Carrying amount at Dec. 31, 23	Carrying amount at Dec. 31, 22
Financial assets			
Cash and cash equivalents	1)	134.4	227.3
Time deposits	1)	65.0	-
Trade receivables	1)	67.6	114.9
Trade receivables	2)	3.6	0.0
Marketable securities and similar investments	2)	5.5	5.2
Other financial assets	1)	4.5	1.5
Derivative financial assets			
Derivatives without hedging relationship	3)	0.4	1.5
Derivatives with a hedging relationship	n.a.	1.7	0.9
Financial liabilities			
Corporate bond	4)	-	240.0
Convertible bonds	4)	192.8	116.5
Term Loan Facility	4)	75.0	
Bank loans, overdrafts and other financial liabilities	4)	19.6	24.6
Refinancing costs	4)	–4.6	–3.7
Lease liabilities	n.a.	26.0	19.9
Trade payables	4)	102.0	99.0
Miscellaneous other financial liabilities	4)	4.1	4.9
Derivative financial liabilities			
Derivatives without hedging relationship	5)	0.3	0.1
Derivatives with a hedging relationship	n.a.	0.1	0.3
Thereof aggregated by measurement category in accordance with IFRS 9			
1) Financial assets measured at amortized costs		271.5	343.7
2) Financial assets measured at fair value through profit and loss		9.1	5.2
3) Other financial assets measured at fair value through profit and loss		0.4	1.5
4) Financial liabilities measured at amortized costs		388.9	481.3
5) Financial liabilities measured at fair value through profit and loss		0.3	0.1

n.a.= not applicable

The carrying amounts for cash and cash equivalents, time deposits, trade receivables, and trade payables are approximately equivalent to their fair value, given the short residual maturities of these items.

The fair value of trade receivables intended for sale under a factoring agreement is the nominal value less the factoring fee. This measurement is based on unobservable market inputs and is therefore allocated to fair value hierarchy level 3. SGL Carbon uses the market price in an active market as the fair value of marketable securities and similar investments. SGL Carbon recognizes the fair value of securities and similar financial investments at market value if there is an active market, otherwise the fair value is determined using observable market data.

Please refer to Note 24 for disclosures on the market value of convertible bonds at the balance sheet date.

Forward exchange contracts are measured on the basis of benchmark rates, taking account of forward premiums and discounts.

SGL Carbon calculates the fair value of liabilities to banks, other financial liabilities and liabilities from finance leases by discounting the estimated future cash flows using the market interest rates for similar financial liabilities with comparable residual maturities. The fair values largely correspond to the carrying amounts.

At December 31, 2023, and 2022, derivative financial assets included currency forwards as well as embedded derivatives for the contractually agreed early repayment options for the convertible bonds and the corporate bond. The embedded derivatives are measured using a generally accepted option pricing model.

Netting
SGL Carbon enters into global netting agreements for derivative financial instruments. No potential impacts arose as a result of these netting agreements in either the reporting year or the previous year, i.e. the gross amounts of currency forwards disclosed in the balance sheet are equal to the potential net amounts.

The table below shows the breakdown of the assets and liabilities measured at fair value into the three levels of the fair value hierarchy at December 31, 2023, and 2022:

	Dec. 31, 23			
	Level 1	**Level 2**	**Level 3**	Total
Marketable securities and similar investments	5.5			5.5
Trade receivables			3.6	3.6
Derivative financial assets		2.1		2.1
Derivative financial liabilities		0.4		0.4

	Dec. 31, 22			
	Level 1	**Level 2**	**Level 3**	Total
Marketable securities and similar investments	5.2			5.2
Trade receivables			0.0	0.0
Derivative financial assets		2.4		2.4
Derivative financial liabilities		0.4		0.4

The table below shows the changes in level 3 trade receivables in the 2023 and 2022 reporting periods:

€m	2023	**2022**
Balance at Jan. 1,	0.0	13.1
Disposals/additions	3.6	–13.1
Gains/Losses recognized in profit and loss	0.0	0.0
Balance at Dec. 31	**3.6**	**0.0**

Net gains or losses on financial instruments by IFRS 9 measurement category were as follows:

Net gain/losses by measurement category

€m	2023	2022
Financial assets measured at amortized costs	–4.7	0.7
Financial assets measured at fair value through profit and loss	0.4	0.8
Other financial assets and financial liabilities measured as fair value through profit and loss	1.5	–6.3
Financial liabilities measured at amortized cost	0.1	2.9

Net gains/losses for the "financial assets measured at amortized cost" measurement category mainly include impairments of trade receivables, reversals of loss allowances/ cash receipts in respect of trade receivables previously written off, together with exchange gains/losses from foreign currency translation.

Net gains/losses for the "financial assets at fair value through profit or loss" measurement category primarily include results from the mark-to-market valuation. Net gains/losses for the "other financial assets and financial liabilities at fair value through profit or loss" measurement category mainly arise from the mark-to-market valuation of derivative currency instruments to which hedge accounting is not applied or was discontinued when the hedged operating item was recognized profit or loss. In economic terms, the derivative financial assets and liabilities are always based on a hedged item.

The net gains or losses on "financial liabilities measured at amortized cost" include gains or losses on foreign currency translation and, in the previous year, the impact on profit or loss of the partial repurchase of the 2018/2023 convertible bond.

Interest income and expenses are not included in net gains and losses, as they are already recognized as described in Note 9. For changes in impairments of trade receivables and contract assets, please refer to Note 27 "Credit risk".

Financial instrument risks, financial risk management, and hedging transactions

SGL Carbon monitors financial risk (liquidity risk, credit risk, and market price risk) using tested control and management instruments. Group reporting enables the central Group Treasury function to record, analyze, measure, and control financial risks on a regular basis. These activities include all relevant Group companies.

Liquidity risk

Liquidity risk is the risk that an entity might have difficulty in meeting payment obligations in connection with its financial liabilities. In order to ensure SGL Carbon's solvency and financial flexibility at all times, SGL Carbon carries out regular liquidity planning for day-to-day operations at frequent intervals. This is done in addition to financial planning, which normally covers five years. To ensure financial stability, SGL Carbon has endeavored to put in place a balanced financing structure based on a combination of various financing components (including capital market instruments, bank loans and factoring).

In fiscal year 2023, the volume of receivables sold totaled €52.2 million (previous year: €21.3 million).

At December 31, 2023, the Company had liquidity totaling €199.4 million (previous year: €227.3 million). This amount represents a sufficient liquidity reserve for fiscal year 2024. Please refer to Note 24 for information on the maturity of financial liabilities.

Credit risk (counterparty default risk)

Credit risk (counterparty default risk) arises if customers do not meet their contractual obligations to pay the agreed purchase price or do not do so on time.

By granting customers credit terms, the Company is exposed to normal market credit risks. For trade receivables and other financial assets, the maximum credit risk is equal to the carrying amount at the balance sheet date. There were no significant individual defaults on customer receivables in the past year, but additional valuation allowances were recognized for various customers.

SGL Carbon has a credit management organization to manage customer credit risks. On the basis of a global guideline, the credit management organization initiates and supports all key processes, and it initiates and supports credit risk management action where required. After analyzing the individual and country risks, SGL Carbon insists - either in whole or in part - on cash in advance, documentary credits, letters of credit, or guarantees in connection with certain customer transactions.

SGL Carbon also has trade credit insurance in place that covers most of the trade receivables due from customers. In the event of default, the financial loss is reduced by claims paid under the credit insurance policy and, in exceptional cases, by the bank or Group guarantees furnished by the customer. The compensation paid by the insurer is usually 90% of the loss and thus provides for a deductible of 10%. When determining valuation allowances on receivables, existing cover commitments under the trade credit insurance are taken into account. In order to determine the credit risk, the credit management processes seek to evaluate the individual customer risks. Since the beginning of the 2023 reporting year, the credit insurance underwriting ratio has been used to classify the credit risk of customer receivables. A distinction is made here between full, partial, and no cover by the credit insurer. Counterparty risks are categorized into risk classes on the basis of the subscription rate and therefore have a direct influence on the level and frequency of the internal limit review.

The default risk for trade receivables and contract assets is broken down by risk class at December 31, 2023, and 2022 as follows (in €m):

Risk classes	Gross carrying amount at Dec. 31, 23	Gross carrying amount at Dec. 31, 22
Full coverage	74.6	88.8
Partial cover	65.3	81.3
No coverage	17.4	18.7
Total	**157.3**	**188.8**

The loss allowances for trade receivables and contract assets are determined using a simplified approach (see the loss allowance matrix below) since they do not contain any significant financing component. In this context, the customer receivables are classified according to the above credit risk classes and the related past due status. A default on a receivable is deemed to have occurred when the contractually agreed cash flows are past due by more than 90 days or when the customer's credit quality has deteriorated to such an extent that payment can no longer be expected. The items are derecognized if it can no longer be reasonably expected that any statutory collection measures will be successful. Historical loss rates are complemented with forward-looking estimates (such as country ratings), if necessary.

With respect to loss allowances for cash and cash equivalents and time deposits (liquidity), SGL Carbon assumes that credit risk has not increased significantly. Cash and cash equivalents of €199.4 million are mainly held at banks and financial institutions with a high credit rating (S&P investment grade, i.e. AAA to BBB-). The loss allowances for liquidity is calculated based on twelve-month expected losses and therefore reflects the short maturities. At the balance sheet dates of December 31, 2023, and 2022, loss allowances for liquidity of €0.1 million each were recognized.

The following table provides information on default risk and expected credit losses in relation to trade receivables and contract assets at December 31, 2023, and 2022:

Dec. 31, 23 in € million	Gross carrying amount	Loss rate (weighted average)	Impairment losses	Restricted credit rating
Not overdue	130.0	1.1%	1.4	No
1- 29 days overdue	14.9	2.7%	0.4	No
30- 60 days overdue	2.4	12.5%	0.3	Yes
61- 90 days overdue	0.9	11.1%	0.1	Yes
more than 90 days overdue	9.1	85.7%	7.8	Yes
Total	**157.3**		**10.0**	

Dec. 31, 22 in € million	Gross carrying amount	Loss rate (weighted average)	Impairment losses	Restricted credit rating
Not overdue	167.5	0.6%	1.0	No
1- 29 days overdue	11.7	1.7%	0.2	No
30- 60 days overdue	2.7	7.4%	0.2	Yes
61- 90 days overdue	1.3	23.1%	0.3	Yes
more than 90 days overdue	5.6	83.9%	4.7	Yes
Total	**188.8**		**6.4**	

The table below shows the development of loss allowances on trade receivables and contract assets:

in million €	2023	2022
Balance at Jan. 01	**6.4**	**6.0**
Additions	4.2	0.8
Reversals	–0.1	–0.3
Utilizations	–0.5	–0.1
Balance at Dec. 31	**10.0**	**6.4**

No loss allowances were recorded for contract assets in either the reporting year or in the previous year.

Market price risks

As an international enterprise, SGL Carbon is exposed to market price risks arising in particular from changes in currency rates, interest rates and other market prices. These risks may result in fluctuations of earnings, equity, and cash flows. The objective of risk management is to eliminate or limit these risks through appropriate measures, primarily through the use of derivative financial instruments. The use of derivative financial instruments is subject to rigorous controls based on internal policies. Derivative financial instruments are exclusively used to minimize or pass off financial risk, not for speculative purposes.

Currency risk

Due to the international nature of its operations, SGL Carbon is exposed to foreign currency risk. A currency risk exists when fair values or future payments vary due to changes in foreign exchange rates. It arises when transactions are denominated in a currency other than the functional currency of the Group company concerned. In order to minimize such foreign currency risks, the Company endeavors to minimize currency risks by achieving a balance between receipts and payments in non-functional currencies, i.e. a so-called natural hedge.

Currency hedges are entered into for the remaining net foreign currency positions (those that are not naturally hedged). In accordance with its internal hedging policy, SGL Carbon hedges up to 80% of these net foreign currency positions, as and when required, over a time horizon of up to of two years. In terms of volume, the most significant currency risk from the operating business results from potential movements in the euro/US dollar exchange rate. At the balance sheet date, the Company had concluded hedging transactions with an average hedging rate of EUR/USD 1.0755. In addition, the euro was hedged against the Chinese yuan at an average rate of EUR/CNY 7.7619 and against the Japanese yen at an average rate of EUR/JPY 159.7539. In 2024, the Company will continuously reduce the cash flow risk through further hedging transactions.

The remaining term of the derivative financial instruments used to hedge currency risks at the balance sheet date is currently one year at most.

Derivative financial instruments in hedge accounting

SGL Carbon generally uses currency forwards to hedge its future net currency exposures. The derivatives used are accounted for as cash flow hedges (hedge accounting). The hedged transactions are highly probable future revenues or purchases in foreign currency. Hedges designated as cash flow hedges (recorded in the hedging reserve in equity) amounted to a total of €1.4 million at December 31, 2023 (previous year: €0.6 million). Changes in the market value of operating hedging transactions that have already been allocated to realized underlying transactions at the balance sheet date and are therefore no longer designated as cash flow hedges are reported in the income statement. The market values amounted to €0.2 million (previous year: €0.0 million). At December 31, 2023, ineffective components of derivative financial instruments classified as cash flow hedges resulted in a net result of €0.2 million (previous year: €0.0 million).

The effectiveness of any designated hedges is determined prospectively using the critical terms match method in accordance with IFRS 9. Under this effectiveness test method for hedging relationships, some important parameters (the “critical terms”) are reviewed in order to check the matching of hedged items to hedging instruments. Where there is a match, an economic hedging relationship exists between the hedged item and the hedging transaction; therefore the hedging relationship is deemed effective. Ineffectiveness may occur due to an unexpected discontinuation of the hedged items, a mismatch in timing between the hedged item and hedging transaction, or a default by the counterparty.

Qualitative effectiveness tests are performed retrospectively using the dollar offset method with hypothetical derivatives for the hedged items.

The table below shows the nominal amounts, the carrying amounts at December 31, 2023, and the gains and losses from designated foreign currency derivatives in fiscal year 2023. The nominal amount is the functional currency equivalent of the foreign currency amounts bought or sold with external counterparties.

	Nominal amounts			Carrying amounts				
€m	**Purchase Dec. 31, 23**	**Sale Dec. 31, 23**	**Total Dec. 31, 23**	**Total Dec. 31, 23**	**Balance sheet disclosure of hedging instruments**	**Gains and losses recognized in other comprehensive income**	**Gains/losses transferred from equity (cash flow hedge) to profit and loss**	**Disclosure of the reclassified amount in prodit and loss**
Forward contracts	0.0	74.3	74.3	1.6	other receivables / financial liabilities	0.8	–1.7	Sales revenues
Thereof:								
USD		44.6	44.6	1.5				
CNY		23.2	23.2	0.3				
JPN		6.5	6.5	–0.2				

The table below is a reconciliation of the accumulated other comprehensive income from cash flow hedges:

€m	Cash flow hedge 2023	**Cash flow hedge 2022**
Balance at January 1,	**0.6**	**–0.2**
Changes of the year recognized in equity	2.5	–1.9
Reclassifications from equity to profit and loss because the transaction originally hedged occured	–1.7	2.7
Balance at December 31,	**1.4**	**0.6**

In the 2023 financial year, total hedging losses of €1.7 million (previous year: gains of €6.1 million) were recognized in other comprehensive income (currency translation reserve) for the hedging of net investments in foreign operations.

IFRS 7 requires sensitivity analyses to be performed to illustrate the currency risk relating to financial instruments. The analyses show the effects of hypothetical changes in relevant risk parameters on profit or loss and equity.

This analysis includes all primary financial instruments of SGL Carbon in the operating area. In particular, this includes cash and cash equivalents in the amount of €30.7 million (previous year: €25.2 million), trade receivables in the amount of €43.0 million (previous year: €72.3 million) and trade payables in the amount of €55.9 million (previous year: €47.6 million). Foreign currency effects from internal lending activities, whether recognized in profit or loss or directly in equity, are also included. It is assumed that the portfolio at the reporting date is representative of the corresponding reporting period. All financial instruments not denominated in the functional currency of the relevant SGL subsidiary are therefore generally considered to be exposed to currency risk. Changes in exchange rates result in changes in fair value and impact either net profit or the hedging reserve, as well as SGL Carbon's total equity.

The following table provides a comparison between the amounts reported at December 31, 2023, and December 31, 2022. The analysis is based on a hypothetical 10% increase in the value of the euro or the US dollar against all other currencies on the balance sheet date.

EUR	Hypothetical exchange rate		Change in fair value/equity		Thereof: change in net profit/loss		Thereof: change in hedging reserve	
€m	Dec. 31, 23	Dec. 31, 22	Dec. 31, 23	Dec. 31, 22	Dec. 31, 23	Dec. 31, 22	Dec. 31, 23	Dec. 31, 22
USD	1.2155	1.1733	–2.7	–8.5	–4.2	–0.4	1.5	–8.1
CNY	8.6451	8.1652	2.1	0.6	1.8	0.1	0.3	0.5
PLN	4.7828	5.1589	0.0	–0.3	0.0	–0.3	0.0	0.0
GBP	0.9560	0.9756	0.4	2.2	0.4	2.6	0.0	–0.4
JPN	171.9630	154.7260	–1.1	–0.8	–1.0	–0.8	–0.1	0.0
Other	-	-	0.0	–0.1	0.0	–0.1	0.0	0.0

USD	Hypothetical exchange rate		Change in fair value/equity		Thereof: change in net profit/loss		Thereof: change in hedging reserve	
US$m	Dec. 31, 23	Dec. 31, 22	Dec. 31, 23	Dec. 31, 22	Dec. 31, 23	Dec. 31, 22	Dec. 31, 23	Dec. 31, 22
EUR	0.9955	1.0313	4.8	10.5	4.8	1.1	0.0	9.4
CNY	7.8236	7.6553	–0.1	–0.2	–0.1	–0.2	0.0	0.0
JPN	155.6226	145.0647	0.1	0.5	0.1	0.5	0.0	0.0
Other	-	-	–0.1	0.1	–0.1	0.1	0.0	0.0

The approximate effect on SGL Carbon's equity, net profit and hedging reserve of a hypothetical 10% devaluation of the euro or the US dollar against all other currencies would be a reversal of the positive and negative signs shown above, with the amounts themselves remaining approximately the same.

Interest rate risk

Interest rate risk is the risk that the fair values of or future cash flows from existing or future financial liabilities may fluctuate due to changes in market interest rates.

At the balance sheet date, SGL Carbon had financial liabilities with a principal amount of €315.2 million (previous year: €398.1 million). Of this amount, €75 million (Term Loan Facility) is subject to a variable interest rate. An increase in interest rates of 100 basis points would lead to a hypothetical negative effect on earnings of minus €0.8 million.

The calculated interest rate risk in relation to the financial liabilities with variable interest rates is offset by liquidity totaling € 199.4 million (previous year: cash and cash equivalents of € 227.3 million), which is also subject to variable interest rates. Liquidity is mainly invested with contractual terms between daily maturity and twelve months at short-term interest rates. The associated interest rate risk was calculated using a short-term average interest rate. An increase in interest rates of 100 basis points would lead to a hypothetical positive effect on earnings of € 2.0 million (previous year: € 2.3 million) for liquidity.

28. Segment reporting

Segment reporting corresponds to the internal organizational and reporting structure. Operations are managed by the four business units, which are also the reporting segments.

Based on established specialty graphites, the GS (Graphite Solutions) business unit supplies customer-specific solutions for traditional and structurally growing customer industries from 14 plants in Europe, America and Asia. Customized graphite components are offered based on a differentiated product portfolio. Growth drivers include the semiconductor and LED market and industrial applications.

The PT (Process Technology) business unit focuses on the construction and repair of plants and equipment for the chemicals industry. The focus here is on the design and manufacture of graphite heat exchangers and syntheses that are exposed to corrosive media.

The CF (Carbon Fibers) business unit pools the manufacturing activities for carbon fibers and carbon fiber semi-finished products. The business unit includes the carbon fiber plants in Moses Lake (US) and Muir of Ord (UK) and the plant in Lavradio (Portugal), which manufactures precursors for carbon fibers and textile fibers. The focus of the business unit is on the comparatively large-volume production of carbon fibers, especially for the wind and automotive industries. The business unit controls the entire value chain, starting with the polymerization of the main raw material, acrylonitrile, through the production of carbon fibers to the manufacture of fabrics. Brembo SGL, an equity-accounted joint venture for the production of carbon-ceramic brake discs, is linked to CF both via the supply chain and in terms of technology and is therefore also assigned to this business unit.

The focus of the CS (Composite Solutions) business unit is the production of customer-specific components and tailor-made applications made of composite materials based on glass and carbon fibers, especially for the automotive industry. The business unit focuses primarily on battery housing applications and GRP leaf springs as well as on various types of carbon friction materials. Manufacturing is carried out at two sites each in Austria and the USA.

The reporting segments presented below are derived directly from the business units. In addition to the four operational reporting segments, there is a fifth reporting segment, Corporate, which comprises head office functions.

EBITDA adjusted for one-off impacts and non-recurring items (“EBITDA pre”) is used as the central operating KPI for the business units. EBITDA pre is earnings before interest and taxes (EBIT) before depreciation, amortization, impairment losses, and impairment reversals on property, plant and equipment and intangible assets, excluding non-recurring items and one-off effects. Non-recurring items and one-off effects can include gains or losses on the sale of land and buildings, expenses and income from restructuring, insurance receipts, and other items that are not directly related to the operating earnings of the business units.

External sales revenue relates almost exclusively to revenue from the supply of products. Trading or other sales revenue is only generated to a small extent. Intersegment transfer prices are set at standard market conditions. The functions of the “Corporate” business unit include providing services to the other segments.

Capital expenditure and depreciation and amortization relate to intangible assets (excluding goodwill) and property, plant and equipment. The consolidation adjustments relate to the elimination of intersegment sales of products and services.

Interest income and financing expenses are not allocated by segment, as this type of activity is performed by the central treasury department, which manages the Group's liquidity.

Selected information on the segments of SGL Carbon is provided below:

Current tax, deferred taxes and certain financial assets and liabilities are also not allocated to the individual segments, as they are managed at Group level.

€m 2023	Graphite Solutions	Process Technology	Carbon Fibers	Composite Solutions	Corporate	Consolidation	SGL Carbon
External sales revenue	565.7	127.9	224.9	153.9	16.7		1,089.1
Intersegment sales revenue	5.0	1.3	24.6	1.0	34.1	–66.0	0.0
Total sales revenue	**570.7**	**129.2**	**249.5**	**154.9**	**50.8**	**–66.0**	**1,089.1**
Timing of revenue recognition							
Products transferred at point in time	177.7	0.0	160.1	36.5	16.7	0.0	391.0
Products and services transferred over time	388.0	127.9	64.8	117.4			698.1
Total sales revenue	**565.7**	**127.9**	**224.9**	**153.9**	**16.7**	**0.0**	**1,089.1**
Sales revenue by customer industry							
Mobility	50.6		68.3	148.5	9.6	0.0	277.0
Energy	60.0		42.2			0.0	102.2
Industrial Applications	169.6		61.4	5.4	7.1	0.0	243.5
Chemicals	23.8	127.9				0.0	151.7
Digitalization	261.7					0.0	261.7
Textile Fibers			53.0			0.0	53.0
Total sales revenue	**565.7**	**127.9**	**224.9**	**153.9**	**16.7**	**0.0**	**1,089.1**
EBITDA pre	134.0	22.4	7.2	22.2	–17.4	0.0	168.4
Amortization/depreciation on intangible assets and property, plant and equipment	29.4	1.4	14.8	6.5	6.8	0.0	58.9
EBIT pre	104.6	21.0	–7.6	15.7	–24.2		109.5
One-off effects/Non-recurring items			–44.9	–5.8	–2.2		–52.9
EBIT	104.6	21.0	–52.5	9.9	–26.4	0.0	56.6
Capital expenditure [1]	57.4	1.5	12.0	5.3	10.9	0.0	87.1
Working capital (Dec. 31) [2]	181.6	21.8	127.5	44.0	–68.9	0.0	306.0
Capital employed (Dec. 31) [3]	483.9	34.1	309.0	93.8	21.0	0.0	941.8
Cash generation [4]	104.2	14.7	–13.1	5.5	9.2	0.0	120.5
Result from investments accounted for At-Equity			18.3			0.0	18.3
Sales of investments accounted for At-Equity [5]			325.4			0.0	325.4

€m 2022	Graphite Solutions	Process Technology	Carbon Fibers	Composite Solutions	Corporate	Consolidation	SGL Carbon
External sales revenue	512.2	106.3	347.2	153.1	17.1		1,135.9
Intersegment sales revenue	5.7	1.8	13.8	0.5	31.9	–53.7	0.0
Total sales revenue	**517.9**	**108.1**	**361.0**	**153.6**	**49.0**	**–53.7**	**1,135.9**
Timing of revenue recognition							
Products transferred at point in time	169.2	0.0	235.2	61.8	17.1	0.0	483.3
Products and services transferred over time	343.0	106.3	112.0	91.3	0.0		652.6
Total sales revenue	**512.2**	**106.3**	**347.2**	**153.1**	**17.1**	**0.0**	**1,135.9**
Sales revenue by customer industry							
Mobility	51.9		115.4	139.6	9.8	0.0	316.7
Energy	72.3		80.7			0.0	153.0
Industrial Applications	173.1		78.1	13.5	7.3	0.0	272.0
Chemicals	28.0	106.3				0.0	134.3
Digitalization	186.9					0.0	186.9
Textile Fibers			73.0			0.0	73.0
Total sales revenue	**512.2**	**106.3**	**347.2**	**153.1**	**17.1**	**0.0**	**1,135.9**
EBITDA pre	118.5	9.9	43.2	20.0	–18.8	0.0	172.8
Amortization/depreciation on intangible assets and property, plant and equipment	29.6	1.7	16.9	5.9	6.7	0.0	60.8
EBIT pre	88.9	8.2	26.3	14.1	–25.5		112.0
One-off effects/Non-recurring items	–2.9	–3.7	–5.0	–7.1	27.6	0.0	8.9
EBIT	86.0	4.5	21.3	7.0	2.1	0.0	120.9
Capital expenditure [1]	33.3	1.0	9.6	5.9	3.1	0.0	52.9
Working capital (Dec. 31) [2]	209.2	15.7	119.4	32.6	–31.5	0.0	345.4
Capital employed (Dec. 31) [3]	480.7	27.2	338.2	89.4	53.4	0.0	988.9
Cash generation [4]	73.5	18.2	29.4	7.1	–22.7	0.0	105.5
Result from investments accounted for At-Equity			18.2			0.0	18.2
Sales of investments accounted for At-Equity [5]			306.3			0.0	306.3

[1] Defined as total of capital expenditure in other intangible assets and property, plant and equipment
[3] Defined as sum of inventories and trade receivables and contract asset less trade payables and contract liabilities
[3] Defined as the sum of goodwill, other intangible assets, property, plant and equipment, investments accounted for At-Equity and working capital
[4] Defined at total of EBITDA pre plus change in working capital minus capital expenditure
[5] Aggregated, non-consolidated 100% values with third parties

The significant one-off effects/non-recurring items include impairment losses on property, plant and equipment at CF and CS totaling €49.5 million, as shown in Note 8 (previous year: impairment losses including transaction costs from the planned sale of the SGL site in India and the operating business in Gardena (USA) totaling minus €8.9 million), a negative effect on earnings from attributable cumulative currency differences of €1.6 million from the disposal of the subsidiary in India, and effects from the adjustment of the purchase price allocations of the SGL Composites companies amounting to minus €1.3 million (2022: minus €5.7 million). In the previous year, one-off effects/non-recurring items also included amounts from the restructuring of pension obligations of minus €5.5 million, restructuring income of €24.7 million as well as positive one-off effects of €5.7 million from the derecognition through profit or loss of compensation payments received in previous years for dismantling, and disposal costs in connection with a terminated rental agreement at the Meitingen site.

The following table presents selected items by geographic region:

€m	Germany	Europe excluding Germany	USA	China	Rest of Asia	Other [2]	SGL Carbon
2023							
Sales revenue (by destination)	282.9	207.5	243.5	178.3	123.7	53.2	1,089.1
Sales revenue (by company headquarters)	408.2	311.1	257.8	94.3	17.7		1,089.1
Capital expenditure	30.4	20.1	29.3	7.1	0.2		87.1
Non-current assets [1]	224.9	189.0	167.9	28.4	3.4		613.6
2022							
Sales revenue (by destination)	294.5	236.2	213.8	181.1	148.1	62.2	1,135.9
Sales revenue (by company headquarters)	423.3	330.5	289.8	73.1	19.2		1,135.9
Capital expenditure	17.2	20.2	10.7	4.6	0.2		52.9
Non-current assets [1]	215.2	187.8	188.5	25.1	4.2		620.8

[1] Non-current assets comprise other intangible assets, property, plant and equipment, investments accounted for At-Equity and other non-current assets (excluding financial assets)

[2] In particular Middle-/South America, Canada and Africa

29. Management and employee participation programs

SGL Carbon currently has three management and employee participation programs, comprising two active plans (Short-Term Incentive Plan and Long-Term Incentive Plan) and the Stock Appreciation Rights Plan, which is being phased out.

Short-Term Incentive Plan (“STI”)

Non-tariff employees, as well as employees classified in one of the four current internal SGL management groups (MG1-MG4), receive an annual bonus based primarily on the achievement of short-term corporate and business unit targets. The reference value is the amount of the individual’s fixed annual remuneration.

The aim is to incentivize all managers on the basis of the Company’s short-term success, thereby giving individuals a strong incentive to contribute to the positive development of the business.

In 2023, the maximum potential bonus a manager could achieve was again based on the targets for SGL Carbon as a whole and for the manager’s business unit. The targets were based on adjusted EBITDA, cash generation, and accident frequency at Group level, and adjusted EBITDA and cash generation at the individual business unit level. For employees in management groups MG1-MG3, a personal target component was also agreed in fiscal year 2023. Payment of the STI for managers in management groups MG1-MG3 is contingent on positive free cash flow and positive net profit.

The bonus is paid in March or April in the year after it is earned. The amount of the STI for the management levels is within a defined corridor (expressed as a percentage of basic salary) and reflects an appropriate contribution to the success of the enterprise.

MG	Threshold	Target	Stretch
MG1	0%	40%	70.00%
MG2	0%	30%	52.50%
MG3	0%	25%	43.75%
MG4/AT	0%	12%	24.00%

The three target categories have identical weightings for the three senior management groups. In order for entitlement to a bonus to arise, the “threshold” (0%) must be exceeded. A "stretch" was also set (175% for MG1-MG3, 200% for MG4/non-tariff), which represents the maximum achievable bonus entitlement.

Long-Term Incentive Plan (“LTI”)

The Long-Term Incentive Plan for senior management, i.e. the members of management groups MG1-MG3 (“SGL Performance Share Plan” or “PSP”), is the basis for a uniform scheme with a long-term incentive effect and a balanced risk/reward profile, under which remuneration is granted in the form of virtual shares (“Performance Share Units” or “PSUs”). Adjusted LTI plan terms were agreed with senior management in 2021, following the review of the approach to senior management incentivization. Since then, senior managers who are promoted to MG3 or join the Company from outside no longer participate in the Long-Term Incentive Plan.

The internal assessment basis for the long-term remuneration component is in principle SGL Carbon’s return on capital employed (ROCE). Prior to the start of individual PSP plan tranches, the Board of Management of SGL Carbon SE may decide to use the ROCE for individual SGL Carbon business units or one or more other performance indicators as the basis for the tranche in question, either in place of or in addition to Group ROCE. The long-term remuneration component also depends on the performance of the SGL Carbon SE share price at the end of the performance period.

The PSP is a cash-settled long-term incentive plan. It does not grant a right to receive actual SGL Carbon SE shares and payouts depend on the degree of target achievement. The objective of granting PSUs is to retain senior management and to motivate them to ensure SGL Carbon’s long-term success. In addition, the share price feature is intended to align the interests of senior management with the interests of shareholders in SGL Carbon's long-term value growth.Based on an allocation value in euros to be determined by the Board of Management of SGL Carbon SE as well as the average opening share price for the last 20 trading days prior to commencement of the performance period, each participant is allocated a preliminary number of Performance Share Units ("number of allocated PSUs") at the beginning of the performance period. This number is then recalculated after the end of the performance period based on the actual degree of target achievement (the result of this performance-based adjustment is the "final number of PSUs"). The payout amount is calculated by multiplying the final number of PSUs by the average closing share price for the final 20 trading days of the performance period.

The payout potential of the LTI for the newly granted plan tranches 2022 and 2023 is a maximum of 120% (LTI 2020 and 2021 maximum 200%). The existing plan tranches, including the relevant targets, are presented below at December 31, 2023:

Tranche	Allocation value [1]	Price [2]	PSU [3]	ROCE-Performance	Fair value [4]
	€m	€	Number	in%	€m
LTI 2020-2023	4.7	4.62	788,248	118.6	5.8
LTI 2021-2024	4.7	3.78	946,396	150.0	7.2
LTI 2022-2025	3.7	7.73	439,410	100.0	2.7
LTI 2023-2026	3.5	7.15	445,524	9.4	0.3

[1] Corresponds to the value at grant date
[2] Fair value at grant date
[3] Outstanding at Dec. 31, 23
[4] PSU-number weighted with the performance and the average share price of 6.24€, calculated on the basis of the last 20 trading days prior to Dec 31, 23

Target indicators ROCE	Minimum	Target	Maximum
Plan 2020-2023	4.0%	7.0%	9.0%
Plan 2021-2024	5.0%	7.8%	9.0%
Plan 2022-2025	10.0%	11.3%	-
Plan 2023-2026	12.0%	13.9%	-

The provisions for the existing LTI plans for the selected executives at December 31, 2023, amounted to a total of €12.9 million (previous year: €10.4 million). In fiscal year 2023, €2.6 million (previous year: €4.5 million) was recognized as an expense.

Stock Appreciation Rights Plan (SAR Plan)

The 2010 SAR Plan came into effect on January 1, 2010. The SARs could be issued at any time during the period until the end of 2014. A maximum of 2,100,000 new shares are to be used to service the SAR Plan from 2010 onward.

SARs have a term of up to ten years and may only be exercised during defined periods (exercise windows). The SARs expire if they are not exercised within their term (total of 255,120 units in 2023 and total of 352,320 units in 2022).

At the end of the reporting year, a total of 246,720 SARs remained outstanding, which expired without replacement in January 2024.

30. Audit fees and services provided by the auditors

The fees for audit services of KPMG AG Wirtschaftsprüfungsgesellschaft mainly related to the audit of the consolidated financial statements and the annual financial statements of SGL Carbon SE. Other assurance activities in 2023 mainly concerned the review of the report on the first half year 2023, the audit of the non-financial Group report 2022, the CSRD readiness check, the audit of the remuneration report in accordance with IDW PS 490, the audit of aid applications under the so-called "Carbon Leakage Regulation" (BEHV), and the EMIR audit in accordance with Section 20, German Securities Trading Act (WpHG).

€m	2023	2022
Audit fees	0.8	0.8
Other assurance services	0.4	0.5
Total	**1.2**	**1.3**

31. List of shareholdings of SGL Carbon according to Section 313 [2] of the German Commercial Code [HGB]

A.	Consolidated Companies		Interest in %	held via
a)	**Germany**			
1	SGL Carbon SE	Wiesbaden		
2	SGL CARBON GmbH [1)]	Meitingen	100	1
3	SGL Fuel Cell Components GmbH [1)]	Meitingen	100	1
4	SGL Battery Solutions GmbH	Meitingen	100	1
5	Dr. Schnabel GmbH [1)]	Limburg	100	2
6	SGL CARBON Beteiligung GmbH [1)]	Wiesbaden	100	1
7	SGL TECHNOLOGIES GmbH [1)]	Meitingen	100	1
8	SGL epo GmbH [1)]	Willich	100	7
9	SGL/A&R Immobiliengesellschaft Lemwerder mbH	Lemwerder	51	7
10	SGL/A&R Services Lemwerder GmbH	Lemwerder	100	9
11	SGL/A&R Real Estate Lemwerder GmbH & Co. KG	Lemwerder	100	10
12	SGL Carbon Asset GmbH [1)]	Meitingen	100	6
13	SGL Composites Materials Germany GmbH [1)]	Meitingen	100	7

[1)] Exemption in accordance with section 264 –3 of the German Commercial Code (HGB)

A.	Consolidated Companies		Interest in %	held via
b)	**Other countries**			
14	SGL GELTER S.A.	Madrid, Spain	64.0	2
15	SGL CARBON S.p.A. in liquidazione (i.L.)	Milan, Italy	99.8	12
16	SGL Graphite Verdello S.r.l.	Verdello, Italy	100	2
17	SGL CARBON do Brasil Ltda.	Diadema, Brazil	100	2
18	SGL Composites GmbH	Ried im Innkreis, Austria	100	7
19	SGL CARBON FIBERS LTD.	Muir of Ord, United Kingdom	100	7
20	SGL Composites S.A.	Lavradio, Portugal	100	7
21	SGL BUSINESS SERVICES, UNIPESSOAL, LDA	Lavradio, Portugal	100	2
22	SGL Carbon Holdings B.V.	Rotterdam, Netherlands	100	6
23	SGL GRAPHITE SOLUTIONS POLSKA sp. z o.o.	Nowy Sącz, Poland	100	22
24	SGL Battery Solutions Polska sp. z o.o.	Nowy Sącz, Poland	100	23
25	SGL CARBON S.A.S.	Passy (Chedde), France	100	1
26	SGL CARBON Technic S.A.S.	Saint-Martin d'Heres, France	100	1
27	SGL CARBON Ltd.	Alcester, United Kingdom	100	1
28	SGL CARBON LLC	Charlotte, NC, USA	100	6
29	SGL Technologies LLC	Charlotte, NC, USA	100	28
30	SGL COMPOSITES INC.	Gardena, CA, USA	100	29
31	SGL TECHNIC LLC	Valencia, CA, USA	100	28

A.	Consolidated Companies		Interest in %	held via
b)	**Other countries**			
32	SGL CARBON TECHNIC LLC	Strongsville, OH, USA	100	28
33	SGL Carbon Fibers America LLC	Moses Lake, WA, USA	100	29
34	SGL CARBON Far East Ltd.	Shanghai, China	100	1
35	SGL CARBON Japan Ltd.	Tokyo, Japan	100	1
36	SGL CARBON Korea Ltd.	Seoul, South Korea	100	1
37	SGL CARBON ASIA-PACIFIC SDN BHD	Kuala Lumpur, Malaysia	100	1
38	SGL Quanhai High-Tech Materials (Shanxi) Co .Ltd.	Yangquan, China	89.1	6
39	SGL PROCESS TECHNOLOGY PTE. LTD.	Singapore	100	1
40	SGL CARBON Graphite Technic Co. Ltd.	Shanghai, China	100	39
41	SGL Carbon Technic Japan Ltd.	Yamanashi, Japan	100	39
42	SGL Graphite Solutions Taiwan Ltd.	Taipei City, Taiwan	100	2

B.	Equity investments over 20%			
	Other countries			
43	Brembo SGL Carbon Ceramic Brakes S.p.A.	Stezzano, Italy	50.0	1
44	MCC-SGL Precursor Co. Ltd.	Tokyo, Japan	33.3	7
45	Fisigen S.A.	Lissabon, Portugal	49.0	20

32. Declaration of conformity with the German Corporate Governance Code

The annual declaration of conformity with the German Corporate Governance Code pursuant to Section 161 of the German Stock Corporation Act (AktG) was issued by the Board of Management and Supervisory Board of SGL Carbon SE on May 9, 2023, and has been published on the SGL Carbon SE website.

33. Subsequent events

The Company has exercised an option to extend the term of its syndicated credit line of €100 million. This extends the term of the syndicated credit line, which was undrawn on the reporting date, by one year to March 2027.

In an ad hoc notification on February 23, 2024, the Company announced that it was evaluating various strategic options for its second-largest business unit, Carbon Fibers (CF). These also include a possible partial or complete divestment of the business unit. The CF sales revenue share in 2023 corresponded to 20.7% of SGL Carbon's consolidated sales revenue (2022: 30.6%). CF's income from operations (excluding pro rata at-equity result) amounted to minus €70.8 million in 2023, including impairment losses of €44.7 million (previous year: €3.1 million).

Wiesbaden, March 20, 2024

SGL Carbon SE
The Board of Management of SGL Carbon SE

Dr. Torsten Derr **Thomas Dippold**

Additional Information

Independent Auditor's Report

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

To SGL Carbon SE, Wiesbaden

Report on the Audit of the Consolidated Financial Statements and of the Group Management Report

Opinions

We have audited the consolidated financial statements of SGL Carbon SE, Wiesbaden, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 December 2023, and the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated cash flow statement for the financial year from 1 January to 31 December 2023, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of SGL Carbon SE for the financial year from 1 January to 31 December 2023. In accordance with German legal requirements we have not audited the content of those components of the group management report specified in the "Other Information" section of our auditor's report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31 December 2023, and of its financial performance for the financial year from 1 January to 31 December 2023, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not cover the content of those components of the group management report specified in the "Other Information" section of the auditor´s report.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Section 317 HGB and the EU Audit Regulation No. 537/2014 (referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January to 31 December 2023. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Recognition of deferred tax assets of the US tax group

Please refer to Note 2 to the consolidated financial statements for information on the accounting policies applied. Information on deferred tax assets and liabilities can be found in Note 19.

THE FINANCIAL STATEMENT RISK

Deferred tax assets of EUR 73.2 million are reported in the consolidated financial statements of SGL Carbon SE as at 31 December 2023, of which EUR 70.0 million is attributable to the US tax group.

For the recognition of deferred tax assets, the executive directors estimate the extent to which the existing deferred tax assets can be utilised in subsequent reporting periods. The realisation of these claims presupposes that sufficient taxable income will be generated in the future. If there are reasonable doubts about the future usability of the calculated deferred tax assets, deferred tax assets are not recognised.

The recognition of deferred tax assets is highly dependent on the estimates and assumptions of the legal representatives with regard to the operating performance of the country units and the Group's tax planning and is therefore subject to significant uncertainties. Furthermore, realisation is dependent on the respective tax law environment.

In the 2023 financial year, the Group recognised deferred tax assets on loss carryforwards, interest carryforwards and temporary differences for the US tax group in the amount of EUR 30.8 million, which resulted from previous years and were considered recoverable for the first time. These deferred taxes on loss carryforwards, interest carryforwards and temporary differences were not recognised in previous years due to insufficient taxable temporary differences and the loss history of the entity concerned. In the current financial year and in the two previous financial years, the entity concerned realised taxable profits on a cumulative basis. In the opinion of the legal representatives, the earnings situation of the entity concerned has improved sustainably, meaning that it is now possible to recognise deferred tax assets on the previously unrecognised loss carryforwards, interest carryforwards and temporary differences.

There is a risk for the consolidated financial statements that the Group's assessment is not appropriate and that the deferred tax assets recognised for the US tax entity are not recoverable.

OUR AUDIT APPROACH

We involved our German and US tax specialists in the audit to assess the recognition of the deferred tax assets of the US tax entity. Firstly, we critically analysed the temporary differences between the IFRS carrying amounts and the tax carrying amounts. We also reconciled the interest and loss carryforwards to the tax assessments and tax calculations for the current financial year and assessed off-balance sheet adjustments.

We assessed the recoverability of the deferred tax assets on the basis of the company's internal forecasts of the future taxable income situation and critically evaluated the underlying assumptions. In this regard, we reconciled the planning of the future taxable income of the US tax group to the Group planning and checked it for consistency with the Group planning prepared by the legal representatives and acknowledged by the Supervisory Board. The appropriateness of the planning used was assessed on the basis of external market estimates. Furthermore, we satisfied ourselves of the quality of the Company's forecasts to date by comparing forecasts from previous financial years with the results actually achieved at a later date and analysing deviations.

We obtained an explanation from the executive directors of SGL Carbon SE's assessment of the sustained improvement in the earnings position of the US tax entity with interest and loss carryforwards. In this context, we convinced ourselves of the implementation of the earnings-improving measures, analysed the causes of the earnings improvement and assessed the sustainability of the taxable earnings.

OUR CONCLUISON

The assumptions underlying the recognition of deferred tax assets for the US tax entity are appropriate overall.

Valuation of intangible assets and property, plant and equipment of the cash-generating unit Carbon Fibers ("CF“)

Please refer to section 2 of the notes to the consolidated financial statements for information on the accounting policies applied and the assumptions made. The business performance of the divisions is explained in the section "Results of operations of the reporting segments" and the expected development, including the opportunities and risks, is explained in the section "Opportunity and risk report" of the Group management report.

THE FINANCIAL STATEMENT RISK

The tied-up capital of the cash-generating unit CF amounts to EUR 240.8 million as at 31 December 2023 and thus represents a significant share of intangible assets and property, plant and equipment at 16.4 % of total assets. In the first half of the financial year, demand for carbon fibers from the wind industry, an important market segment for the cash-generating unit CF, fell sharply, combined with a later than previously expected recovery in demand. This gave rise to an indication of impairment of the intangible assets and property, plant and equipment allocated to the cash-generating unit CF, with the result that SGL carried out an impairment test as at 30 June 2023.

The impairment test was performed at the level of the cash-generating unit. SGL determines the recoverable amount of the cash-generating unit and compares this with the respective carrying amount. If the carrying amount is higher than the recoverable amount, an impairment loss is recognised. The recoverable amount is the higher of the fair value less costs to sell and the value in use of the cash-generating unit. The value in use is determined using the discounted cash flow method. The reduction in expected future cash inflows led to an impairment loss of EUR 44.7 million to be recognised for the cash-generating unit CF. This was allocated to the non-current assets of the cash-generating unit and the central assets allocated to it on a pro rata basis. The remaining carrying amount of this cash-generating unit as at 31 December 2023 is EUR 224.9 million.

The impairment test for intangible assets and property, plant and equipment is complex and is based on a number of judgemental assumptions. These include, in particular, the forecast cash flows, the assumed useful economic life of the main production facilities, the assumed long-term growth rates and the discount rates used.

In the second half of 2023, the sales situation of the cash-generating unit CF deteriorated further, meaning that the Executive Board also adjusted the expected future cash inflows. The short-term future business prospects have changed compared to the corporate planning adjusted during the year. Due to this change, SGL carried out a new impairment test and did not identify any need for impairment as at 31 December 2023. The company's sensitivity calculations showed that a possible change in the discount rate or the long-term growth rate and cash inflows in the detailed planning period would result in an impairment loss.

There is a risk for the consolidated financial statements that the impairment existing as at the reporting date was not recognised in an appropriate amount.

OUR AUDIT APPROACH

With the involvement of our valuation specialists, we assessed, among other things, the appropriateness of the key assumptions and the Company's calculation method. For this purpose, we discussed the expected business and earnings development as well as the assumed long-term growth rates with those responsible for planning. We also reconciled the budget prepared by the executive directors and acknowledged by the Supervisory Board. In addition, we assessed the consistency of the assumptions with external market assessments.

We also examined the quality of the company's forecasts to date by comparing forecasts from previous financial years with the results actually achieved and analysing deviations. In particular, we analysed the significant assumptions, such as the development of sales and margins, as a result of planning errors. We compared the assumptions and data underlying the discount rate, in particular the risk-free interest rate, the market risk premium and the beta factor, with our own assumptions and publicly available data and checked the plausibility of the assumed economic useful lives of the material production facilities.

In order to assess the methodologically and mathematically appropriate implementation of the valuation method, we verified the valuation performed by the company using our own calculations and analysed deviations.

In order to take into account the existing forecast uncertainty, we analysed the effects of possible changes in earnings development or the long-term growth rate on the recoverable amount by calculating alternative scenarios and comparing them with the Company's values (sensitivity analysis).

OUR CONCLUISON

The calculation method underlying the impairment test of the intangible assets and property, plant and equipment of the cash-generating unit CF is appropriate and in line with the applicable valuation principles. The Company's assumptions and data underlying the valuation are appropriate.

Other Information

Management respectively supervisory board are responsible for the other information. The other information comprises the following components of the group management report, whose content was not audited:

- the separate group non-financial report, which is made reference to in the group management report,
- the group corporate governance statement, included in section “Corporate Governance Declaration, Corporate Governance and Compliance Report” of the group management report, and
- information extraneous to management reports and marked as unaudited.

The other Information includes also the remaining parts of the annual report.

The other Information does not include the consolidated financial statements, the group management report information audited for content and our auditor’s report thereon.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the above-mentioned other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report information audited for content or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

Management is responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, management is responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group’s ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, management is responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group’s position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by management in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the actions taken or safeguards applied to eliminate independence threats.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Group Management Report Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB

We have performed assurance work in accordance with Section 317 (3a) HGB to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in the electronic file "SGLCarbon-2023-12-31-de.zip" (SHA256 Hash value: 7057746371a558d6c6c98cf5f9c40c110e36271028dbf6c4b6282ff3f211637e) made available and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained in these renderings nor to any other information contained in the file identified above.

In our opinion, the rendering of the consolidated financial statements and the group management report contained in the electronic file made available, identified above and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management report for the financial year from 1 January to 31 December 2023 contained in the "Report on the Audit of the Consolidated Financial Statements and the Group Management Report" above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the file identified above.

We conducted our assurance work on the rendering of the consolidated financial statements and the group management report contained in the file made available and identified above in accordance with Section 317 (3a) HGB and the IDW Assurance Standard: Assurance Work on the Electronic Rendering of Financial Statements and Management Reports Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB (IDW AsS 410 (06.2022)). Our responsibility in accordance therewith is further described below. Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QS 1).

The Company's management is responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the group management report in accordance with Section 328 (1) sentence 4 item 1 HGB and for the tagging of the consolidated financial statements in accordance with Section 328 (1) sentence 4 item 2 HGB.

In addition, the company's management is responsible for such internal control that they have considered necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB for the electronic reporting format.

The supervisory board is responsible for overseeing the process of preparing the ESEF documents as part of the financial reporting process.

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. We exercise professional judgement and maintain professional scepticism throughout the assurance work. We also

- Identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.
- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.
- Evaluate the technical validity of the ESEF documents, i.e. whether the file made available containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815, as amended as at the reporting date, on the technical specification for this electronic file.
- Evaluate whether the ESEF documents provide an XHTML rendering with content equivalent to the audited consolidated financial statements and the audited group management report.
- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Delegated Regulation (EU) 2019/815, as amended as at the reporting date, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor by the annual general meeting on 9 May 2023. We were engaged by the supervisory board on 7 September 2023. We have been the group auditor of the SGL Carbon SE without interruption since the financial year 2017.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

Other matter – Use of the Auditor's Report

Our auditor's report must always be read together with the audited consolidated financial statements and the audited group management report as well as the examined ESEF documents. The consolidated financial statements and group management report converted to the ESEF format – including the versions to be entered in the company register – are merely electronic renderings of the audited consolidated financial statements and the audited group management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the examined ESEF documents made available in electronic form.

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Michael Pritzer.

München, 21 March 2024

KPMG AG
Wirtschaftsprüfungsgesellschaft
[Original German version signed by:]

Pritzer	Becker
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the Consolidated Financial Statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Group Management Report includes a fair review of the development and performance of the business and the position of the group, together with a description of the material opportunities and risks associated with the expected development of the Group.

Wiesbaden, March 20, 2024

SGL Carbon SE
The Board of Management of SGL Carbon SE

Dr. Torsten Derr Thomas Dippold

Corporate Bodies

Board of Management

(Status: December 31, 2023)

Dr. Torsten Derr

Chairman/Chief Executive Officer of SGL Carbon SE

Responsible for:

Human Resources & Management Development
Legal, Compliance & Internal Audit
Corporate Development / Strategy / Transformation Process
Corporate Communications
Sustainability & ESG
Purchasing
Production Technology Safety Environment (PTSE)
Global Engineering & Construction
BU Graphite Solutions
BU Composite Solutions
BU Carbon Fibers
BU Process Technology

Internal board memberships:
Brembo SGL Carbon Ceramic Brakes S.p. A., Stezzano, Italy [1)]

Thomas Dippold

Chief Financial Officer of SGL Carbon SE

Responsible for:

Group Accounting
Group Controlling
Group Treasury
Financial Reporting
Group Taxes
Risk Management
Legal, Compliance, and Internal Audit
Investor Relations
Information Technology, Information Security & Digitization
BU Graphite Solutions
BU Composite Solutions
BU Carbon Fibers
BU Process Technology

Internal board memberships:
SGL CARBON LLC, Charlotte, USA
SGL Process Technology Pte. Ltd., Singapore

[1)] Shareholder Committee
With memberships outside Germany, the respective country is mentioned

Supervisory Board

(Status: December 31, 2023)

Prof. Dr. Frank Richter (since May 9, 2023)

Chairman of the Supervisory Board of SGL Carbon SE
Chairman of the Personnel and Nomination Committee

Managing Director SKion GmbH, Bad Homburg

Board memberships pursuant to Sec. 125 (1) 5 AktG:
SKion GmbH group companies:
- Altana AG, Wesel
- Landa Digital Printing, Israel

Georg Denoke

Deputy Chairman of the Supervisory Board of SGL Carbon SE
Chairman of the Audit Committee

Managing Director and CEO of ATON GmbH, Munich

Board memberships pursuant to Sec. 125 (1) 5 AktG:
EDAG Engineering Group AG, Arbon, Switzerland [2)]

Edwin Eichler

Consultant

Board memberships pursuant to Sec. 125 (1) 5 AktG:
SMS Group GmbH, Duesseldorf [1)]
Käfer SE & Co KG, Bremen [3)]

Ingeborg Neumann

Managing partner of Peppermint Holding GmbH, Berlin

Board memberships pursuant to Sec. 125 (1) 5 AktG:
FUCHS PETROLUB SE, Mannheim
BERLINER WASSERBETRIEBE AöR, Berlin

Markus Stettberger

Deputy Chairman of the Supervisory Board of SGL Carbon SE (since May 9, 2023)
Deputy Chairman of the Works Council (full-time), SGL CARBON GmbH, Meitingen
Deputy Chairman of the SE-Works Council

Dieter Züllighofen

Chairman of the Works Council (full-time)
SGL CARBON GmbH, (Site Bonn)

Kathrin Bamberger (since May 9, 2023)

Back Office Sales Professional,
SGL Composites GmbH, Ort im Innkreis/Austria

Axel Hemleb (since May 9, 2023)

Deputy Chairman of the Works Council (full-time), SGL CARBON GmbH, (Site Bonn)
Member of the Supervisory Board of SGL CARBON GmbH, Meitingen

Dr. h.c. Susanne Klatten (until May 9, 2023)

Chairwoman of the Supervisory Board of SGL Carbon SE
Chairwoman of the Personnel and Nomination Committee

Entrepreneur

Board memberships pursuant to Sec. 125 (1) 5 AktG:
ALTANA AG, Wesel
BMW AG, Munich
UnternehmerTUM GmbH, Munich [1)]
SprinD GmbH, Leipzig

Helmut Jodl (until May 9, 2023)

Deputy Chairman of the Supervisory Board of SGL Carbon SE
Chairman of the Works Council (full-time), SGL CARBON GmbH, Meitingen
Chairman of the SE-Works Council

Ana Cristina Ferreira Cruz (until May 9, 2023)

Head of Integrated Management System
SGL COMPOSITES, S.A., Lavradio, Portugal

[1)] Chairwoman/Chairman of the supervisory board
[2)] Chairman of the administrative board
[3)] Member of the administrative board
With memberships outside Germany, the respective country is mentioned

Glossary

Commercial Glossary

Associated companies
Associated companies are entities in which significant influence can be exercised over their operating and financial policies and which are not subsidiaries, joint ventures or joint operations. In general, this applies to companies in which SGL has an investment of between 20% and 50%.

At-Equity method
Method used in the consolidated financial statements for measuring and accounting for investments in which the SGL Carbon has joint control in, or significant influence over. Under the equity method, investments of this kind are initially recognized at cost. In subsequent years, these investments then change in line with their profit or loss contribution.

Bond
Collective term for interest-bearing debt instruments with contractually fixed repayment terms. Bonds are issued either by governments or companies and sold through financial institutions and provide long term external financing.

Cash flow
An economic measure for the inflow and outflow of cash funds representing the net inflow from sales activity and other cur-rent activities in a period. In a cash flow statement, the change in cash and cash equivalents is broken down by operating activity, investing activity and financing activity.

Cashflow-Hedge
A hedge of a recognized asset or of future, highly likely (foreign currency) transactions. The change in value of the hedging instrument is recognized directly in equity.

Cash Generation
EBIT adjusted plus amortization/depreciation on intangible assets and property, plant & equipment plus change in working capital less capital expenditure.

Capital employed
The sum of Goodwill, other intangible assets, property, plant & equipment and working capital.

Capital expenditures (capex)
Capex is defined as additions to other intangible assets and property, plant and equipment excluding additions from acquisitions and right-of-use assets arising from leases.

Convertible bond
A corporate bond that includes a share option. Under the option, the bond can be exchanged (converted) for shares in the company subject to certain preconditions. The exchange is possible within a specific period at a fixed price. The conversion price normally exceeds the share price on the date of the bond issue.

Corporate Governance
The German Corporate Governance Code is the primary legislation governing the management and monitoring of German publicly traded companies and comprises international standards for adequate and responsible corporate management.

CSR (Corporate Social Responsibility)
Refers to the social responsibility of companies for the impact of their activities on society and the environment and measures derived from this. Also known as sustainability concerns, which are explained in detail in the CSR Report.

Declaration of conformity
Declaration of conformity by the Board of Management and Supervisory Board of compliance with the German Corporate Governance Code pursuant to section 161 German Stock Corporation Act (AktG).

Deferred taxes
Assets and liabilities arising from the different treatment of transactions for financial and tax reporting purposes.

Distributable accumulated profits/accumulated losses
Result of SGL Carbon SE as reported in its German GAAP financial statements based on calculation pursuant to the German Commercial Code (HGB).

DSO (Days Sales Outstanding)
Trade account receivables divided by sales revenue, times 360 (A low figure indicates that the company collects its outstanding receivables quickly).

Earnings per share (EPS)
The figure of EPS is calculated by dividing the net result of the year attributable to SGL Carbon SE shareholders by the weighted average number of outstanding shares for the financial year.

EBIT
Earnings before interest and taxes. EBIT is an important key performance indicator for assessing the operational profitability of companies.

EBIT-margin
EBIT pre to sales revenue, also known as return on sales.

EBIT pre (adjusted)
EBIT pre for non-recurring items and one-off effects. Unlike EBIT, this indicator eliminates non-recurring items to establish a better baseline for forecasts. Non-recurring items mainly include restructuring costs and effects from purchase price allocation. Examples of one-off effects are land sales, insurance compensation, reversal of certain provisions.

EBITDA
Earnings before interest, taxes, depreciation and amortization. In the case of EBITDA, the focus is rather more on cash earnings potential.

EBITDA pre (adjusted)
EBITDA pre for non-recurring items and one-off effects. In contrast to EBITDA, this indicator eliminates special items so that operating performance can be better compared over several periods. See "EBIT pre (adjusted)" for definition of non-recurring items and one-off effects.

Equity ratio
The shareholders’ equity as a proportion of total assets. The higher the equity ratio, the more independent a company is from external providers of capital. The equity ratio is also an indicator of the creditworthiness and robustness of a company.

EURIBOR
Euro InterBank Offered Rate (EURIBOR) is an interest rate at which euro interbank term deposits are offered

ESG
Sustainability aspects based on environmental concerns (environmental, social and governance concerns).

Derivative financial instruments
Forward contracts whose value is derived from another existing (primary) market value. An example of a derivative is a currency option, in which the premium largely depends on the option price, the maturity of the option and the volatility of this currency.

Free cash flow
The balance of cash flow from operating activities and cash flow from investing activities. Free cash flow therefore reflects the amount available to the company, for example, for debt repayment or distribution of dividends.

Free float
The total number of shares not owned by major investors (e.g. the parent company). Free float shares are distributed among a large number of shareholders and can therefore be bought and sold by many people. The number of free float shares therefore also normally provides an indication of the liquidity of the shares.

Functional costs
Functional costs include cost of sales, R&D expenses, selling expenses and general and administration expenses.

Gearing
The ratio of net financial debt to equity. Gearing is a key performance indicator reflecting financial strength and illustrates the dependency of a company on third-party lenders. The higher the figure, the greater the theoretical dependency.

Goodwill
The excess of cost of an acquisition over the fair value of the acquired entity at the time of acquisition.

Global Reporting Initiative (GRI)
An initiative that publishes the GRI Standards. These contain specifications and indicators for sustainability reporting. The GRI Standards are internationally established as a framework for voluntary sustainability reporting.

Gross profit
Sales revenue less cost of sales.

Hedging
Strategy to limit or eliminate price risks. Hedging is standard practice in capital markets and is used by market players to offset risks.

International Financial Reporting Standards (IFRS), formerly International Accounting Standards (IAS)
Uniform accounting standards to enhance comparability of financial data. According to European Union regulation, publicly traded companies are required to prepare their consolidated financial statements in accordance with these rules.

Joint venture
A contractual agreement whereby two or more parties undertake an economic activity that is subject to joint control.

Joint operation
A joint arrangement whereby the parties that have joint control of the arrangement have rights of the assets, and obligation for the liabilities, relating to the arrangements.

Leverage Ratio
Net financial debt to EBITDA pre. Key figure that compares debt to operating earnings before interest, taxes, depreciation and amortization. Due to the cash earnings potential of EBITDA, this key figure is often used by banks for granting loans.

Market capitalization
Key performance indicator providing information on the stock market value of a listed company. It is calculated by multiplying the number of shares by the current share price.

Net Financial Debt
Interest-bearing loans (nominal) less cash and cash equivalents less time deposits.

Non-recurring items and one-off effects
Non-recurring items mainly include restructuring costs and effects from the purchase price allocation. In contrast to non-recurring items, one-off effects do reflect a period of time. They include, among other things, the sale of real estate, insurance compensation and the reversal of certain provisions.

Operating EBIT
EBIT before non-recurring items and one-off effects. In contrast to EBIT, this parameter eliminates non-recurring effects in order to establish a better baseline for forecasts.

Rating
Internationally recognized criteria for assessing the creditworthiness of a debtor or company. Ratings are determined by specialist agencies using standardized procedures.

Return on sales
Ratio of EBIT pre to sales revenue. Return on sales (ROS) provides information on a company's operating profit as a percentage of sales revenue in the period under review. A high return on sales indicates a high level of profitability.

ROCE (Return on capital employed)
The ratio of EBIT pre to capital employed. This key performance indicator provides information on the return on average capital employed by a company over a specific period.

Syndicated loan
A loan offered by a syndicate consisting of several core industries; the loan's overall risk (e. g. resulting from credit quality or capital lock-up) is spread across the financial institutions involved.

Term Loan Facility
A credit facility that enables the borrower SGL to borrow a fixed amount for a specified period of time (the term).

UN Global Compact
World's largest initiative for responsible corporate governance. Member companies commit to implementing ten universal principles and regularly documenting their progress. These include human rights, labor standards, the environment and corruption prevention.

Weighted average cost of capital (WACC)
An average representing the expected return on all of a company's securities. Each source of capital, such as stocks, bonds and other debt, is assigned a required rate of return, and then these required rates of return are weighted in proportion to the share each source of capital contributes to the company's capital structure. The resulting rate is what the firm would use as a minimum for evaluating a capital project or investment.

Working Capital
Inventories plus trade receivables and contract assets minus trade payables and contract liabilities. This figure describes the current assets employed by a company in the short-term. The lower the working capital, the better the liquidity position of a company.

Technical Glossary

Coarse grain graphite
The grain size lies between 1 mm and up to approx. 20 mm. Key material property is the high resistance to thermal shock. Typical product examples are graphite electrodes for steel scrap recycling, cathodes for aluminum electrolysis and furnace linings for crude steel.

Fine grain graphite
Specialty graphite with a fine grain structure and a grain size of between 1 mm and few µm, with which the required material strengths can be achieved. Fine grain graphites have a broad spectrum of applications in the semiconductor, mechanical engineering, metallurgical, industrial furnace construction, medical and analysis technology industries (isostatic graphite).

Fuel cell
A fuel cell is an electrochemical cell that convert chemical energy of a continuously supplied fuel (e.g. hydrogen, methanol) and an oxidizing agent (e.g. oxygen) into electrical energy. Gas diffusion layers (GDL), which ensure homogenous gas distribution on the electrode, are an important component of a fuel cell. This component often consists of a special paper that is based on short-cut carbon fibers.

GHG Protocol
The GHG Protocol distinguishes greenhouse gas emissions into three categories according to their origin:
Scope 1 includes all emissions that result from energy consumption directly within the company, such as the consumption of natural gas or heating oil.
Scope 2 covers all indirect emissions resulting from the generation of energy that the company purchases from external sources, such as electricity and district heating.
Scope 3 applies to all other emissions that arise in the course of corporate value creation. This includes both indirect emissions within the company itself (e.g., from business travel, commuting) and emissions from upstream value creation (e.g., purchasing, logistics) as well as emissions from the downstream value chain (e.g., at the customer).

Isostatic graphite
Special fine grain graphite for specific applications. Its name is derived from the method of production (isostatically pressed; in a chamber of water subjected to equal pressure from every side). The main features of isostatic graphite are strength, density and isotropic structure. It is therefore used in all applications where the mechanical properties of conventional graphite are inadequate.

Lithium-ion battery
Rechargeable battery with high energy and performance density. The cathode is made from a lithium compound, the anode from carbon or graphite. During the charging process, the

lithium ions in the cathodes migrate to the carbon lattice of the anode material (intercalation). During discharging, the lithium ions from the intercalation migrate back to the cathode. Lithium-ion batteries are the standard batteries for mobile applications today. The anode material often consists of synthetic graphite (GAM: graphite anode material).

Natural graphite
A natural mineral. It is extracted from both surface and underground mining. High purity (> 99%) is achieved by purification processes (flotation, thermal and chemical purification). Natural graphite possesses the nearly ideal crystalline structure of graphite. Its use as a lubricant is well known. The largest natural graphite amounts are used for fire proof applications. Small amounts are also included in the recipe for fine grain graphites. Inclusion of acids produces graphite salts, which are converted to expanded graphite in a thermal process.

PAN-Precursor
Synthetic fiber made from polyacrylonitrile (PAN). PAN precursor is the raw material used in the production of carbon fibers.

Petroleum coke
Is a mass volume by-product of the oil refining process and is used as one of the raw materials for the production of synthetic graphite.

REACH (regulation for chemicals)
REACH stands for Registration, Evaluation, Authorization and Restriction of Chemicals.

Wide-bandgap semiconductor
Materials whose band gap is at the upper end of the range of semiconductors (3 eV to over 4 eV). Traditional silicon-based semiconductors have a band gap of 1.1 eV. Examples of wide-bandgap semiconductor materials are GaN, SiC. Such materials are distinguished from traditional semiconductors by advantages such as processing higher voltages, operating at higher temperatures, processing higher frequencies and greater reliability. They are therefore suitable for applications in power electronics, low-noise amplifiers and for high-frequency and microwave amplifiers.

List of Acronyms

A AktG
German Stock Corporation Act (Aktiengesetz)

C CFRP
Carbon Fiber Reinforced Plastic

D DAX
German Stock Index (large caps)

DCGK
German Corporate Governance Code

E EBIT
Earnings before Interest and Taxes

EBITDA
Earnings before Interest, Taxes, Depreciation and Amortization

EHSA
Environment, Health & Safety Affairs

EPS
Earnings per Share

H HGB
German Commercial Code

I IAS
International Accounting Standards

IASB
International Accounting Standards Board

IFRIC
International Financial Reporting Interpretations Committee

IFRS
International Financial Reporting Standards

IT
Information technology

L LTCI
Long-Term Cash Incentive

LTI
Long-Term Incentive

M MDAX
MidCap DAX

P PSU
Performance Share Units

R REACH
Registration, Evaluation, Authorization and Restriction of Chemicals

ROCE
Return on Capital Employed

S SAR
Stock Appreciation Rights

SDAX
SmallCap DAX

SE
Societas Europae – (Share) corporate according to European law

STI
Short-Term Incentive

U UmwG
German Transformation Act

V VorstAG
Act on Appropriateness of Management Board Remuneration

W WpHG
German Securities Trading Act

Financial Calendar

March 22, 2024

- Publication of Annual Report 2023
- Annual Press Conference (conference call)
- Conference call for investors and analysts

May 8, 2024

- Statement on the First Quarter 2024
- Conference call for investors and analysts

May 23, 2024

- Annual General Meeting (virtual)

August 8, 2024

- Report on the First Half Year 2024
- Conference call for investors and analysts

November 7, 2024

- Statement on the First Nine Months 2024
- Conference call for investors and analysts

Contact

Investor Relations
SGL Carbon SE
Söhnleinstrasse 8
65201 Wiesbaden/Germany
Phone: +49 611 6029-103
Fax: +49 611 6029-101
Email: Investor-Relations@sglcarbon.com

www.sglcarbon.com

Production Credits

Published by
SGL Carbon SE
Head Office
Söhnleinstrasse 8
65201 Wiesbaden/Germany

Concept and Design of Cover
SGL Carbon

Inhouse produced with *firesys*

Photo Credits

Board of Management
Hanne Engwald

Chairman of the Supervisory Board
Martin Joppen Photography GmbH

Five-year Financial Summary

€m	Footnote	2023	2022	2021	2020	2019
Financial performance						
Sales revenue		1,089.1	1,135.9	1,007.0	919.4	1,086.7
thereof outside Germany		*74%*	*74%*	*69%*	*69%*	*69%*
thereof in Germany		*26%*	*26%*	*31%*	*31%*	*31%*
EBITDApre	1)	168.4	172.8	140.0	92.8	120.0
Operating profit/loss (EBIT)		56.6	120.9	110.4	−93.7	−34.3
Result from continuing operations before income taxes		22.4	94.6	82.1	−123.1	−73.2
Consolidated net result (attributable to the shareholders of the parent company)		41.0	126.9	75.4	−132.2	−90.0
EBITDApre margin	2)	15.5%	15.2%	13.9%	10.1%	11.0%
Return on capital employed (ROCE $_{\text{EBIT pre}}$)	3)	11.3%	11.3%	8.0%	1.8%	3.9%
Earnings per share, basic (in €)		0.34	1.04	0.62	−1.08	−0.74
Net assets						
Equity attributable to the shareholders of the parent company		605.3	569.3	371.5	220.7	418.6
Total assets		1,472.6	1,480.3	1,376.3	1,258.8	1,504.8
Net financial debt		115.8	170.8	206.3	286.5	288.5
Equity ratio	4)	41.1%	38.5%	27.0%	17.5%	27.8%
Leverage Ratio	5)	0.7	1.0	1.5	3.1	2.4
Headcount	6)	4,808	4,760	4,680	4,837	5,127
Financial position						
Capital expenditures in intangible assets and property, plant and equipment		87.1	52.9	50.0	55.8	95.1
Depreciation/amortization expense		58.9	60.8	60.3	73.3	71.6
Working capital		306.0	345.3	341.2	351.8	406.8
Free cash flow	7) 8)	95.6	67.8	111.5	93.9	−17.3

1) Before one-off effects/non-recurring items of minus €52.9 million in 2023, €8.9 million in 2022, €30.7 million in 2021, minus €113.2 million in 2020 and minus €82.7 million in 2019
2) EBITDApre to sales revenue
3) EBITpre to average capital employed (total of goodwill, other intangible assets, property, plant and equipment, investments accounted for At-Equity and net working capital)
4) Equity attributable to the shareholders of the parent company to total assets
5) Net debt to EBITDApre
6) As of Dec. 31, including employees with fixed term contracts
7) Cash flow from operating activities (continuing operations) minus cash flow from investing activities (continuing operations)
8) Till 2019 interest payments included in free cash flow

SGL Carbon SE
Söhnleinstraße 8
65201 Wiesbaden/Germany
Phone +49 611 6029-0
www.sglcarbon.com