



SMA

Annual Report 2022

SMA Solar Technology AG

SMA Solar Technology AG at a glance

SMA group		2022	2021*	2020	2019	2018
Sales	€ million	1,065.9	983.4	1,026.6	915.1	760.9
Export ratio	%	68.8	74.9	79.6	76.1	80.6
Inverter output sold	MW	12,225	13,584	14,416	11,409	8,449
Capital expenditure ¹	€ million	65.8	56.4	57.1	54.4	40.3
Depreciation	€ million	38.1	41.7	43.6	46.0	82.6
EBITDA	€ million	70.0	8.5	71.5	34.2	-69.1
EBITDA margin	%	6.6	0.9	7.0	3.7	-9.1
Net income	€ million	55.8	-23.2	28.1	-8.6	-175.5
Earnings per share ²	€	1.61	-0.67	0.81	-0.25	-5.06
Employees ^{3,7}		3,635	3,510	3,264	3,124	3,353
in Germany		2,610	2,506	2,293	2,207	2,227
abroad		1,025	1,004	971	917	1,126

SMA group		2022/12/31	2021/12/31*	2020/12/31	2019/12/31	2018/12/31
Total assets	€ million	1,110.0	1,053.7	1,051.2	1,107.3	989.3
Equity	€ million	463.5	408.0	439.1	416.9	424.5
Equity ratio	%	41.8	38.7	41.8	37.6	42.9
Net working capital ⁴	€ million	238.5	257.5	210.6	159.5	177.4
Net working capital ratio ⁵	%	22.4	26.2	20.5	17.4	23.3
Net cash ⁶	€ million	220.1	221.7	226.0	303.0	305.3

¹ Investments including additions of rights of use in accordance with IFRS 16

² Converted to 34,700,000 shares

³ Reporting date; including trainees and learners; excluding temporary employees

⁴ Inventories and trade receivables minus trade payables and liabilities from advanced payments received for orders

⁵ Relating to the last twelve months (LTM)

⁶ Total cash minus interest-bearing financial liabilities to banks

⁷ The distribution of employees in Germany and abroad was adjusted for the years 2018 to 2021 due to a change in allocation

* The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2)

ENERGY

THAT CHANGES

As a leading global specialist in system technology, the SMA group is setting the standards for the decentralized and renewable energy supply of tomorrow.

More than 3,600 SMA employees in 20 countries have devoted themselves to this task.

Our innovative solutions for the sustainable generation, storage and use of energy enable people and companies around the world to meet their energy needs with greater independence.

In collaboration with our partners and customers, we are helping the world transition to a digital, decentralized and renewable energy supply. Our energy inspires the world's most important customer. Our future.





DR.-ING. JÜRGEN REINERT

Chief Executive Officer SMA Solar Technology AG

FOREWORD BY THE MANAGING BOARD

Dear Shareholders,

In 2022, the global economy as a whole but also we as a company were once again presented with some major challenges. Ongoing problems affecting global supply chains and rising energy prices as a result of the war in Ukraine but also climate-related extreme weather events are still prevalent. And they are once again clearly demonstrating to us that the swift and sustainable expansion of renewable energies is now more urgent than ever.

This makes me all the more pleased to announce that we closed the 2022 reporting year successfully. On the one hand, this shows us that we are on the right track with our strategy. But, on the other hand, it also proves that solar energy is increasingly taking on the pivotal role that experts have long attributed to it.

HIGH ORDER VOLUMES AND SALES GROWTH DESPITE ONGOING SHORTAGE OF MATERIALS

This is also reflected in our incoming orders, which reached a very high level in the fiscal year just ended – even hitting the highest figure in the history of our company in August 2022. However, due to the ongoing shortage of components, it was only possible to cater for part of the very strong demand – especially at the beginning of the year. This can also be seen in our sales and earnings, which we steadily improved over the course of the fiscal year. Incoming orders that remained at a high level and gradual improvements in the supply of electronic components were both contributing factors. In the 2022 fiscal year as a whole, we increased our sales by 8.4% to €1,065.9 million (2021: €983.4 million) and significantly improved our operating earnings before interest, taxes, depreciation and amortization (EBITDA) from €8.5 million to €70.0 million. This equates to an EBITDA margin of 6.6% (2021: 0.9%).

We on the Managing Board are optimistic that the 2023 fiscal year will see a continuation of the positive sales trend that began back in the second half of 2022 and we will be able to regain market shares. We are still experiencing a very high level of incoming orders, and our current assessment is that there will also be a gradual easing of the supply situation for electronic components over the coming quarters, further improving the SMA group's delivery capacity. In light of this, for the current fiscal year we are anticipating sales of between €1,350 million and €1,500 million and an operating result (EBITDA) of between €100 million and €140 million.

SYSTEMATIC EVOLUTION INTO A SUSTAINABLE ENERGY TRANSITION COMPANY

In addition, we are working consistently and intensively to make our business even more customer-centric. With this aim in mind, we are continuing to implement the company-wide SPIRIT program that we launched in 2022. The aim is to bring processes and structures in line with the various customer needs and design them in such a way that SMA can develop and deliver even faster, more seamlessly and in a more demand-oriented manner. It is thus possible to align our portfolio of systems and solutions even more precisely to the current and future requirements of the various customer segments. Operational business responsibility in the segments will also be significantly strengthened and decision-making processes made faster. For 2023, we have set ourselves the objective of implementing the new understanding of roles and processes throughout the company and laying a stable foundation for the new process organization. The basis for this realignment is our Strategy 2025 that we formulated in 2020, under which we will systematically transform the SMA group into an innovative and sustainable energy transition company. In the 2023 fiscal year, we will continue to consistently follow the approach of putting ourselves in a position to offer appropriate solutions for all essential areas of future energy supply and press ahead with the required steps.

We are consistently implementing our customers' requirements in our products as well. Alongside inverters with integrated energy management, we are increasingly focusing on complete system solutions for grid stability, virtual servicing options, and energy supply solutions for green hydrogen systems. And all the signs are pointing toward growth. By the end of 2024, we will double our production capacity from its current level of 21 GW to nearly 40 GW. On a land area of approximately 46,000 sqm, our new gigawatt factory will predominantly produce systems for the large-scale PV power plant segment and create over 200 new jobs.

Furthermore, holistic sustainability in all areas of the company is one of the key objectives of the SMA Strategy 2025. Not only do we want to acknowledge the tremendous importance of sustainability within the SMA group, but we also want to take account of the growing expectations of our stakeholder groups. The Sustainability Board Committee is monitoring the individual targets and the degree to which they have been achieved on a quarterly basis.

We are receiving recognition for our sustainability work. In 2022, the rating agency MSCI ESG Research raised SMA's sustainability rating to the highest level of AAA. And the rating agency EcoVadis awarded us the gold medal for successful sustainability management. This is validation that we are on the right track.

SOLAR INDUSTRY STILL HAS GROWTH POTENTIAL

Solar energy will play a key role in combating the climate crisis. There are a number of other important elements that will help us meet our climate protection targets, including electrification of mobility and heat and the production of green hydrogen. Forecasts are predicting that green electricity could cover three-quarters of global energy use in the long term, given a consistent climate policy. Both trends are acting as additional forces driving demand for electricity. The considerable importance of a swift and sustainable energy transition is also reflected in the numerous political action plans and programs like the European Green Deal and the European Union's Green Deal Industrial Plan that was announced in February 2023. Although all the details are yet to be clearly laid out, we are confident that plans like these will be an important driver in boosting the competitiveness of European cleantech companies. Not least for this reason, our medium- to long-term prospects remain positive, and the SMA group is ideally positioned in this growth market with its innovative products and solutions. By further developing our core business, selectively developing new business areas as well as directing our high capacity for innovation at specific areas and expanding our partner network, our aim is to continue growing our sales and our profitability on a lasting basis over the next few years.

Our global workforce of over 3,600 employees is absolutely crucial to these plans. So I'd like to take this opportunity to thank them all wholeheartedly. For their tireless efforts, their passion for our products and solutions, and the extraordinary commitment they devote every day to making our customers happy. It is our employees who guarantee the success of our company.

I would also like to sincerely thank my Managing Board colleague, Barbara Gregor, who took on responsibility for Finance and Legal on December 1, 2022. With her many years of international experience, we will continue to forge a successful path for SMA as a globally operating, innovative energy transition company. I'm really looking forward to our continued collaboration.

Dear shareholders, we would like to thank you for your trust and would be pleased if you continued to accompany the SMA group on its path in the future.



Dr.-Ing. Jürgen Reinert
Chief Executive Officer
SMA Solar Technology AG

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DR.-ING. JÜRGEN REINERT

Chief Executive Officer

After studying electrical engineering in South Africa, Dr.-Ing. Jürgen Reinert (b. 1968) received his doctorate at the Institute for Power Electronics and Electrical Drives (ISEA) at RWTH Aachen, Germany, and began his career as senior engineer there. From 1999 to 2011, he worked for Emotron AB in Sweden, where in his last position, as General Manager, he was responsible for Technology and Operations. From 2011 to 2014, as Executive Vice President, Technology, he was responsible for the division Power Plant Solutions at SMA. Under his leadership, SMA was successful in expanding its worldwide project business and developing turnkey system solutions for large-scale PV power plants. Since April 2014, Dr. Reinert has been a member of the Managing Board. He was appointed Chief Executive Officer in October 2018. Dr. Reinert is responsible for Strategy, Sales and Service, Operations and Technology. He is a member of the Supervisory Board at Danfoss A/S.

THE MANAGING BOARD TEAM

BARBARA GREGOR

Board Member for Finance and Legal

Barbara Gregor (b. 1970) started her career at the thyssenkrupp group after graduating in business management. She held a number of positions in Germany and abroad as well as at the group headquarters (central corporate function of controlling). Between 2002 and 2013, she worked in the group's stainless steel segment, where she supported the establishment of the Shanghai Krupp Stainless joint venture in Shanghai. Her last role was head of controlling and authorized officer for the thyssenkrupp Stainless International Group. From 2013 to 2015, she was CFO of the apt Hiller Group where she spearheaded international growth and M&A projects. Before joining SMA, Barbara Gregor was CFO of the international operating unit thyssenkrupp Materials Trading and Managing Director (CFO) of thyssenkrupp Materials Trading GmbH, where she was responsible for managing and further developing the areas of Finance, Controlling, Accounting, Risk Management, Human Resources and IT. She assumed responsibility for the SMA board functions of Finance, Legal and Capital Market Communications on December 1, 2022.

SUPERVISORY BOARD REPORT

Dear Shareholders,

After a first half of the year characterized by material shortages and associated underutilization of production capacity, in the second half of the year, the SMA group recorded an increase in order volumes that coincided with material shortages becoming less acute and a significant upturn in business as a result. Prospects for renewable energy sources continuing to become more positive and the progressing development of the SMA group into a systems and solutions provider as part of its Strategy 2025 lay solid foundations for the SMA group's journey to sustainable profitability.

In the reporting year, collaboration with the Supervisory Board and between the Supervisory Board and Managing Board was characterized by openness, intensity and constructiveness. The Supervisory Board assisted the Managing Board in an advisory capacity and continuously monitored the Managing Board with regard to the management of the company in accordance with the law, Articles of Incorporation and Rules of Procedure. For its part, the Managing Board involved the Supervisory Board and its committees early on in all decisions of fundamental importance to the SMA group. Furthermore, the Supervisory Board was kept informed both in writing and speech of all strategy issues relevant to the company, the market and competitive situation, and business developments. The Managing Board also regularly updated the Supervisory Board on the SMA group's sales, earnings and general situation. Furthermore, the Managing Board presented detailed information on proposed business policies and other important questions concerning corporate planning, in particular financial, investment, production and personnel planning, as well as significant business transactions to the Supervisory Board. Deviations in how events actually transpired in comparison to planned projects or objectives were provided, including reasons for the variances. Plus, the Supervisory Board was informed about the group's profitability, above all the return on equity, risk and opportunity management, risk status and compliance.

The Supervisory Board closely scrutinized and discussed business transactions requiring the approval of the Supervisory Board as well as instances where business performance deviated from corporate planning. Even beyond the regular Supervisory Board and Audit Committee meetings, the Chairman of the Supervisory Board and his deputy as well as the Audit Committee Chairwoman were in frequent contact with the Managing Board and discussed subjects concerning strategy, planning, business development, position of risk, risk management and compliance, as well as significant business transactions and upcoming decisions. The Supervisory Board members take general and specialized training necessary for their tasks of their own accord, and in doing so, they receive appropriate support from the company if needed. No Supervisory Board or Managing Board members reported any conflicts of interest to the Supervisory Board.

Focus of Supervisory Board consultations

The Supervisory Board examined all material events and discussed them with the Managing Board at six meetings – of which two meetings in person – and adopted necessary resolutions in accordance with the law, Articles of Incorporation and Rules of Procedure. Romy Siegert and Kim Fausing participated in four meetings. Roland Bent and Oliver Dietzel participated in five meetings. The other Supervisory Board members participated in all six meetings.

In preparation for the meetings, the Supervisory Board received written reports from the Managing Board on a regular basis and on time. At each regular meeting, the subject matter of the deliberations were current business developments, the evolution of markets of particular importance to the SMA group and corporate planning. Members of the Managing Board participated in all regular Supervisory Board and Audit Committee meetings, but were not present for discussions of matters relating to the Supervisory Board or Managing Board itself.

At its meeting on February 8, 2022, the Supervisory Board dealt with the Corporate Governance Report included in the 2021 Annual Report and the Supervisory Board Report for 2021. In addition, the Supervisory Board discussed the contents of the combined non-financial statement presented by the Managing Board and possible proposals to the Annual General Meeting on profit appropriation. The deliberations and discussions also addressed the underlying reasons for an onerous PV system management contract for the company and its impact on the Annual Financial Statements as well as the composition of the Managing Board.

At its meeting on March 24, 2022, the Supervisory Board dealt with the Remuneration Report included in the 2021 Annual Report. Additionally, the Supervisory Board passed the proposal for selection of the auditors of the Financial Statements and the Consolidated Financial Statements for 2022 and approved the Managing Board's proposal for a virtual Annual General Meeting. The deliberations and discussions also covered the possible acquisition of shares in a company and a Managing Board appointment. Finally, the Supervisory Board evaluated the objective achievements of the Managing Board members in 2021.

At its meeting convened to adopt the accounts on March 30, 2022, the Supervisory Board acknowledged the 2021 Annual Financial Statements, approved the 2021 Consolidated Financial Statements after in-depth consultation and also passed the proposal to the Annual General Meeting on profit appropriation for 2021, the Corporate Governance Report, the Supervisory Board Report and the Remuneration Report.

At its meeting on May 30, 2022, the Supervisory Board discussed the topics of product quality and quality costs. Additionally, the discussions and resolutions covered the company's personnel-related plans as well as strategies and efforts to improve sustainability.

The meeting on September 14, 2022, focused on implementation of the company's Strategy 2025 and transformation of the company organization to a more customer-centric, decentralized structure. In addition, the Supervisory Board familiarized itself with the company's product innovations and product roadmap and discussed the results achieved in the partnership with Danfoss A/S. Furthermore, the Supervisory Board was informed about the status of the review of project handling and about the financial developments of SMA Solar Technology AG's subsidiaries. Finally, the Supervisory Board discussed financial and non-financial objectives for the Managing Board members.

At its meeting on December 13, 2022, the Supervisory Board dealt in depth with the budget for the 2023 fiscal year submitted by the Managing Board. It also discussed the Managing Board's report on the orientation of the SMA group's sales and service and on a more profitable direction for the large-scale inverter business. Furthermore, the Supervisory Board agreed to hold a virtual Annual General Meeting in 2023 and approved the proposal that was put to the Annual General Meeting on renewing the Managing Board option for a contingent capital increase. The Managing Board and the Supervisory Board also adopted a new Declaration of Conformity pursuant to Section 161 (1) sentence 1 of the German Stock Corporation Act (AktG) to comply with the recommendations of the German Corporate Governance Code.

Focus of committee meetings

To improve the efficiency of the work carried out by the Supervisory Board, the Supervisory Board maintains four permanent committees: the Presidial Committee, Audit Committee, Nomination Committee and Mediation Committee. You will find the names of the persons appointed to these committees on our [website](#) as well as in the Corporate Governance Statement 2022.

The committees prepare the topics and resolutions to be reviewed by the entire Supervisory Board, and, within the framework of the competencies assigned to them, they resolve those matters they have been assigned instead of the Supervisory Board. The content of the committee meetings is reported on by the committee chairperson at the subsequent plenary session of the Supervisory Board. All members of the Supervisory Board receive the content and resolutions of the committees in writing.

The **Presidial Committee** met three times – two of which were in person – in 2022. The committee's work focused in particular on dealing with matters relating to the Managing Board and preparing Supervisory Board resolutions on restructuring the Man-

aging Board and on financial and non-financial objectives for the Managing Board, as well as preparing of the efficiency check on the Supervisory Board. Kim Fausing participated in two meetings. The other members participated in all meetings of the committee.

The **Audit Committee** met ten times – two of which were in person – in 2022. The meetings focused on discussing the company's business performance and cost efficiency, the Quarterly Statements and Half-Yearly Financial Report. In addition, the committee familiarized itself with the main points and overall findings of the auditor for the 2021 Annual Financial Statements and, upon review, confirmed the auditor's independence. The Audit Committee also dealt with tax issues. Another key area of the committee's work was reviewing the internal monitoring system (internal control system, internal risk management system, internal audit and compliance), with the committee members gathering comprehensive information about these systems' methods and effectiveness. Furthermore, the committee handled the Half-Yearly Financial Report prepared by the Internal Audit department and the Compliance Report, neither of which showed any significant irregularities in SMA business processes. Other topics of the committee meetings were the contents of the combined non-financial statement of the company pursuant to Section 289c of the German Commercial Code (HGB) and the extended Auditors' Report. The Audit Committee also reviewed the recommendation made for the entire board to consider regarding profit appropriation, selecting the auditor for 2022 and granting the audit mandate for the financial and non-financial reporting. Finally, deliberations and discussions addressed the implementation of new statutory requirements concerning risk management, accounting and financial audits. Oliver Dietzel attended nine meetings, while the remaining members of the committee attended all meetings.

The **Nomination Committee** and **Mediation Committee** did not convene in 2022.

Corporate Governance

In the reporting year, the Supervisory Board also dealt with the contents of the German Corporate Governance Code that had been newly adopted in June 2022. For the reporting year, the Supervisory Board and the Managing Board issued a Declaration of Compliance pursuant to Section 161 of the German Stock Corporation Act (AktG) in compliance with the recommendations of the German Corporate Governance Code. The joint report issued by the Supervisory Board and the Managing Board on compliance with the rules of the German Corporate Governance Code pursuant to clause 23 of the German Corporate Governance Code (Corporate Governance Report) has been made permanently available on our [website](#). The Corporate Governance Report is also presented in the "Corporate Governance" section of the Combined Management Report. This is also where you will find statements on conflicts of interest and how they are handled.

Annual Financial Statements and Consolidated Financial Statements

The Annual Financial Statements prepared by the Managing Board as of December 31, 2022, the Combined Management Report of SMA AG for the 2022 fiscal year, the Consolidated Financial Statements as of December 31, 2022, and the Combined Management Report of the SMA group for the 2022 fiscal year were audited by the accounting firm BDO AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, Germany. The Supervisory Board granted the audit assignment in accordance with the resolution adopted by the General Meeting on May 31, 2022. The Supervisory Board also monitored the independence of the auditor.

The Consolidated Financial Statements of the company were prepared in line with Section 315a of the German Commercial Code (HGB) on the basis of the International Financial Reporting Standards (IFRS) as applicable in the EU. The auditor granted an unqualified audit opinion for the Annual Financial Statements and the Combined Management Report of SMA AG as well as for the Consolidated Financial Statements and the Combined Management Report of the SMA group.

The reporting documents, including the combined non-financial statement of the company, and the Managing Board's proposal on the appropriation of profits as well as the audit reports were made available to the Supervisory Board in good time. These were first discussed by the Audit Committee at its meetings on February 7, 2023, and March 21, 2023, with the auditors and then by the Supervisory Board at its meeting on March 22, 2023, in the presence of the auditor's representatives. The auditor's representatives reported on the audit findings and provided detailed explanations of the net assets, financial position and results of operations of the company and the group. The questions posed by the Supervisory Board were answered and the reporting documents were reviewed in detail with the auditor's representatives and discussed and examined by the Supervisory Board. The Supervisory Board raised no objections after concluding its examination. Thereafter, the findings of the audit were approved. Accordingly, the Supervisory Board approved the Financial Statements prepared by the Managing Board and the related Combined Management Report for the 2022 fiscal year at its meeting convened to adopt the accounts on March 22, 2023. Hence, the company's Annual Financial Statements have been approved as set out in Section 172 of the German Stock Corporation Act (AktG).

Finally, at its meeting held on March 22, 2023, the Supervisory Board approved the Managing Board's proposal on the appropriation of the balance sheet profit. In this respect, the Supervisory Board discussed the company's liquidity position, the financing of planned investments and estimated business development. In doing so, the Supervisory Board came to the conclusion that the proposal was in the interests of the company and the shareholders.

Changes to the Managing Board and Supervisory Board

Ulrich Hadding left the Managing Board on May 31, 2022. In 2022, the Supervisory Board also appointed Barbara Gregor to the company's Managing Board. She took up her appointment on December 1, 2022. The Supervisory Board appointed Thomas Pixa to the Managing Board for the period from June 1, 2022, to November 30, 2022. The Supervisory Board would like to thank Ulrich Hadding and Thomas Pixa for all their hard work at the company and wishes Barbara Gregor every success in her role with the company.

There were no personnel changes to the Supervisory Board.

In 2022, the SMA group succeeded – through clever strategic planning and by responding flexibly to rapidly changing market conditions and systematically taking the necessary action – in making further progress on its way toward becoming a solutions provider. We must continue to pursue this path consistently over the next few years to be a part of the promising future of renewable energies.

The Supervisory Board would like to thank the Managing Board and all employees for their dedicated work and their strong commitment in leading the SMA group and the cause of renewable energies to a successful future.

Niestetal, March 22, 2023

The Supervisory Board

Uwe Kleinkauf
Chairman

**ROLAND BENT**

Shareholder Representative

**MARTIN BREUL**

Employee Representative

**OLIVER DIETZEL**

Employee Representative

**KIM FAUSING**Shareholder Representative
(Deputy Chairman)**JOHANNES HÄDE**

Employee Representative

**ALEXA HERGENRÖTHER**

Shareholder Representative

**UWE KLEINKAUF**Shareholder Representative
(Chairman)**ILONKA NUSSBAUMER**

Shareholder Representative

**YVONNE SIEBERT**

Employee Representative

**ROMY SIEGERT**

Employee Representative

**JAN-HENRIK SUPADY**

Shareholder Representative

**DR. MATTHIAS VICTOR**

Employee Representative

COMBINED MANAGEMENT REPORT¹

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¹ The present Combined Management Report has been drawn up for both the SMA group and SMA AG. It was prepared in accordance with Sections 289, 289a, 315 and 315a of the German Commercial Code (HGB) and German Accounting Standards (GAS) numbers 17 and 20.

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BASIC INFORMATION ABOUT THE GROUP

Business activity and organization

SMA Solar Technology AG and its subsidiaries (SMA group) develop, produce and sell systems and solutions for the efficient and sustainable generation, storage and use of solar energy. These include PV and battery inverters, monitoring systems for PV systems, charging solutions for electric vehicles as well as intelligent energy management systems and digital services for the future energy supply. Extensive services up to and including operation and maintenance services for photovoltaic power plants (O&M business) as well as medium-voltage technology and power supplies for hydrogen production round off the product range. With its products and services, the SMA group actively contributes to making a sustainable, secure and cost-effective energy supply a reality worldwide.

Organizational structure

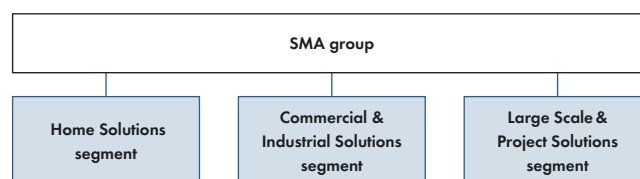
LEGAL STRUCTURE OF THE GROUP

As the parent company of the SMA group, SMA Solar Technology AG, headquartered in Niestetal near Kassel, Germany, takes over all of the functions required for its operative business. The parent company holds, either directly or indirectly, 100% of the shares of all the operating companies that belong to the SMA group. The Combined Management Report includes information regarding the parent company and all 28 group companies (2021: 29), including 6 domestic companies and 22 companies based abroad. In addition, SMA Solar Technology AG holds a 42% interest in elexon GmbH. The joint venture in the field of charging infrastructure facilities was established in 2019 and is included in the Consolidated Financial Statements using the equity method.

ORGANIZATIONAL AND REPORTING STRUCTURE

The SMA group operates under a functional matrix organization. In this organization, the Home Solutions, Commercial & Industrial (C&I) Solutions (until December 31, 2021: Business Solutions business unit) and Large Scale & Project Solutions segments manage development, operational service and sales as well as production and procurement/logistics.

REPORTING STRUCTURE



MANAGEMENT AND CONTROL

In accordance with the German Stock Corporation Act, the executive bodies consist of the Annual General Meeting, the Managing Board and the Supervisory Board. The Managing Board manages the company. The Supervisory Board appoints, supervises and advises the Managing Board. The Annual General Meeting elects shareholder representatives to the Supervisory Board and grants or refuses discharge to the Managing Board and the Supervisory Board.

COMPOSITION OF THE MANAGING BOARD

Since December 1, 2022, the Managing Board of SMA Solar Technology AG has comprised the following members: Dr.-Ing. Jürgen Reinert (Chief Executive Officer, Board Member for Strategy and Technology, Sales and Service, Human Resources, Operations and for the SMA business units) and Barbara Gregor (Board Member for Finance, Legal, Corporate Governance, Compliance, Internal Audit and capital market communication).

COMPOSITION OF THE SUPERVISORY BOARD

The Supervisory Board of SMA Solar Technology AG, which represents shareholders and employees in equal measure, consists of Roland Bent, Kim Fausing (Deputy Chairman), Alexa Hergenröther, Uwe Kleinkauf (Chairman), Ilonka Nußbaumer and Jan-Henrik Supady as shareholder representatives. The employees are represented on the Supervisory Board by Martin Breul, Oliver Dietzel, Johannes Häde, Yvonne Siebert, Romy Siegert and Dr. Matthias Victor.

Products and services¹

As a specialist in system technology, the SMA group develops and globally sells systems and solutions consisting of hardware, software and services that allow energy to be efficiently generated and intelligently monitored, managed and used. The portfolio of the SMA group contains a wide range of PV inverters, holistic system solutions for PV systems of all power classes, battery storage solutions, intelligent energy management systems, charging solutions for private and commercial electric vehicles, digital energy services for private and business customers, and complete solutions for PV diesel hybrid applications. In addition, the SMA group offers extensive services up to and including operation and maintenance services for photovoltaic power plants (O&M business) and power supplies for hydrogen production. The inverters of the SMA group already come integrated with all the functions required to generate maximum yields, without any additional cost to customers. These functions include effective shade management with SMA ShadeFix and inverter monitoring with SMA Smart Connected within the string inverters.

In the **Home Solutions segment**, the SMA group caters to global markets for private PV systems with and without storage systems and connections to a smart home solution. Our SMA Energy System Home provides an end-to-end, single-source system package featuring all the hardware, software and service components required for an independent and cost-effective household energy management. It comprises single- and three-phase string inverters in the Sunny Boy and Sunny Tripower product families in the output range of up to 12 kW, integrated services, energy management solutions, storage systems with the Sunny Island, Sunny Boy Storage and Sunny Tripower Smart Energy product families as well as charging solutions for electric vehicles. They form a comprehensive smart home solution. Communication products and accessories, services, such as extended warranties, spare parts and modernization of PV systems (Repowering) to enhance performance, as well as digital energy services complete the offering. With this portfolio of products and services, the SMA group provides solutions for private PV systems in all major photovoltaic markets worldwide.

In the **Commercial & Industrial Solutions segment**, the focus is on global markets for commercial PV systems with and without energy management, battery storage and electric vehicle charging solutions. SMA Energy System Business, featuring ideally matched hardware, software, tools and services, gives commercial enterprises and the real estate industry the option of producing, storing and selling solar power themselves, organizing their companies' energy flows in a transparent and cost-efficient way as well as charging and managing electric vehicle fleets efficiently and sustainably. The solutions comprise the three-phase string inverters of the Sunny Tripower product family with outputs of more than 12 kW and up to 110 kW, storage solutions for the commercial sector in the Sunny Tripower Storage and Sunny Island product families as well as holistic energy management solutions for commercial integrated energy. Solutions for charging management and billing of electric vehicle fleets on the basis of the ennexOS platform, which are implemented by the Commercial & Industrial Solutions segment together with the subsidiary company coneve, complete the offering. The SMA group also offers services and digital services for operational system management up to and including system repowering and expansion in this segment.

The **Large Scale & Project Solutions segment** focuses on international PV power plant markets with complete solutions that perform optimal grid service and monitoring functions on the basis of central and string inverters and system controllers. The outputs of the string inverters in the Sunny Highpower product family and the central inverters in the Sunny Central product family in this segment range from 100 kW to the multi-megawatts. Another focus is on storage solutions for large-scale PV and storage power plants with the Sunny Central Storage product family. Solutions for optimized hydrogen production complete the segment's portfolio. The containerized power conversion systems are optimized for high efficiency and the modular design reduces installation time, complexity and risk. The portfolio is supplemented by technology and customer services, for example, for the modernization and functional enhancement of PV power plants (repowering), and operation and maintenance services (O&M business). In addition, the SMA group implements large-scale storage projects in this segment worldwide.

¹ The following section is not a mandatory component of the combined management report as defined in Sections 289, 315 HGB in conjunction with GAS 20, and therefore not a subject of the financial audit.

Important sales markets and competitive situation¹

With its extensive portfolio of systems and solutions, the SMA group is well positioned to benefit in all segments from the growth of global solar and battery-storage markets and from the increasing demand for holistic solutions for energy management and electric vehicle charging for private and commercial applications. Its own presence with experienced specialists in 20 countries on six continents enables the SMA group to serve all markets worldwide. Our main customer groups include companies from the sectors of investment, project development, engineering, procurement and construction (EPC), system integration, energy supply, operation and maintenance services, real estate industry, wholesale and installation companies as well as commercial enterprises.

Our production site for inverters in Niestetal (Germany) has an overall annual capacity of 22 GW. The competence center for coils (electromagnetic components) is based in Modlniczka, near Krakow (Poland). With its international positioning and product and service portfolio for all types of applications and different regional requirements, the SMA group can respond quickly to shifts in demand on international markets anytime.

SMA estimates that approximately 192 GW to 200 GW of new PV power was installed worldwide in 2022. This is again a significant increase compared to last year's level (2021: 162 GW; figures exclude inverter retrofitting and battery inverter technology). SMA estimates that global PV inverter technology sales, including inverter retrofitting and battery inverter technology, increased to around €9.2 billion to €10.0 billion in the reporting period (2021: €8.1 billion).

According to SMA estimates, the share of the photovoltaic markets in Europe, the Middle East and Africa (EMEA) in global sales increased to more than 31% in 2022 (2021: 30%). By contrast, with approximately 28%, American photovoltaics markets declined (2021: 32%). The Chinese market accounted for 22% of global sales in 2022 (2021: 18%) due to further strong growth. The Asia-Pacific photovoltaic markets (excluding China) accounted for 19% of sales and thus less than in the previous year (2021: 20%).

SALES GROWTH DESPITE ONGOING SHORTAGE OF MATERIALS

The aftereffects of the coronavirus pandemic and the additional negative effects caused by the Ukraine war again presented the SMA group with major challenges in 2022. Due to the ongoing shortage of components, the very strong demand, particularly in the areas of storage systems, PV and hybrid inverters and energy management for private households, could only be partially met. In 2022, the SMA group sold PV inverters with accumulated power of 12,225 MW (2021: 13,584 MW). Sales increased to €1,065.9 million (2021: €983.4 million). The increase is a result of the improved supply situation for electronic components during the year and the implementation of price increases.

In the reporting year, the SMA group pressed ahead with its strategic development into an innovative and sustainable "energy transition company" with suitable solutions for all key areas. In addition to the expansion of digital offers in the Home Solutions and Commercial & Industrial Solutions segments, the conclusion of contracts to supply innovative large-scale storage power plants in Australia and Europe also contributed to this. The capacity for seamless grid integration and provision of grid services is taking on crucial importance as a result of the fast-growing share of fluctuating renewable energy sources in utility grids worldwide. The SMA group's technologies meet the highest international standards here. In addition, the SMA group successfully pursued its positioning in the new business field of green hydrogen production in the reporting year. Projects with SMA system technology for the processing of direct current for electrolysis went into operation in the U.S., Europe, Asia and Australia.

Strategy

The climate crisis is a challenge facing all countries around the world. In view of the increasingly drastic consequences worldwide, the expansion of renewable energies is becoming ever more important. Experts also believe that the global energy crisis caused by the war in Ukraine and the resulting explosion in fossil fuel prices will further accelerate the shift toward renewable energies. According to the International Energy Agency's (IEA) Renewables 2022 report, renewable energy capacity growth in the electricity, transit and heating sectors will almost double over the next five years, replacing coal as the largest source of power generation. The IEA expects global renewable power generation capacity to increase by 2,400 gigawatts (GW) by 2027 and is forecasting a breakthrough for renewables within this time frame.

¹ The estimated values in the following section are not a mandatory component of the combined management report as defined in Sections 289, 315 HGB in conjunction with GAS 20, and therefore not a subject of the financial audit.

Alongside photovoltaics as the most cost-effective energy source, the experts also attest to the enormous growth potential of green hydrogen (power-to-gas) in the coming years. Other growth drivers include the electric vehicle sector and battery-storage systems, the use of which plays an indispensable role in the success of the energy transition and is increasing worldwide.

More and more households, cities and companies are becoming less dependent on energy fuel imports and rising energy costs by having their own PV systems. This will lead to a rise in demand for energy storage solutions in the residential, commercial and industrial sectors. In addition, energy will be increasingly distributed via smart grids to manage electricity demand, avoid consumption peaks and take the strain off utility grids. Furthermore, the integration of a prospectively large number of electric vehicles will, on the one hand, play a decisive role in increasing the self-consumption of renewable energies and, on the other hand, also provide the opportunity to offset fluctuations in the utility grid. Using artificial intelligence, the behavior of decentralized energy consumers and storage systems can be adapted to the fluctuating production of electricity from renewable energies, thus enabling the overall system to be optimized.

In this context, innovative system technologies that temporarily store solar power and provide energy management to private households and commercial enterprises offer worthwhile business opportunities for the SMA group on its way to become a system provider. Rising prices for conventional domestic and commercial power and many private households and companies wanting to drive forward the energy transition by making their contribution to a sustainable and decentralized energy supply promote new business models. Plus, electric utility companies are increasingly using battery-storage systems to avoid expensive grid expansions, stabilize grid frequency and balance fluctuations in the power feed-in from renewable energy sources. In addition to storage technology, digital energy services aimed at optimizing household and commercial enterprises' energy costs and their connection to the energy market are thus becoming increasingly significant.

The SMA group has aligned itself with a clear focus on these growth markets as well as the global change in energy supply and has set a course for sustainable growth, long-term business success and successful positioning as part of its Strategy 2025. The SMA group is already an innovative and sustainable energy transition company. Systematic work is being carried out on developing possible means of offering suitable solutions for all essential

areas of future energy supply. We are leveraging our systems expertise to develop complete, future-proof solutions of significant customer benefit in close collaboration with our strong partners and to tap into new business areas.

The entire Strategy 2025 is based on defined ambition levels from which the respective annual objectives are derived. Regular monitoring of strategy implementation is ensured by a continuous management process that includes reviews at quarterly level as well as an annual strategy conference. The extent to which the objectives have been achieved and the progress made within the objectives and areas of action are thus made transparent to all key stakeholders and also regularly communicated to employees. Management derives appropriate courses of action from the results of the strategy reviews.

Purpose, vision and mission¹

SMA's purpose reflects the strong entrenchment of sustainability within the company, which also represents a key element of the SMA Strategy 2025. It is: "Our energy inspires the world's most important customer. Our future." We think long-term, strive for an eco-friendly and resource-saving way of doing business, and have a livable planet for future generations in mind.

The same is true of our vision, which sets out the SMA group's vision for the future and the standard we are setting ourselves: "We pioneer access to clean energy." With our experience, our innovative strength and our knowledge of system technology, we make renewable energies accessible to people all over the world in an easy, straightforward and sustainable way.

Our mission statement describes how we intend to achieve this objective and meet the ambitions and needs of our customers and other stakeholders: "We leverage 40 years of expertise and passion in renewables to drive the world's energy transition with our partners." In our daily interactions, we embody our company values of trust, performance and team spirit, and allow our actions – within and outside the company at all levels – to be influenced by our brand values: We are **sustainable** and respect people and the planet, we are **passionate** in all that we do, we are **connected** and work together to achieve our objectives, we are **visionary** and dare to innovate, and we are a **reliable** partner.

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Strategic areas of action

The strategic areas of action of the SMA strategy have been formulated across all segments and are derived from the overarching megatrends in our market environment and the previously described growth potential in core SMA markets.

This includes focusing on the **core photovoltaic business** as well as the further development of the SMA group in the relevant growth fields of **battery-storage systems, e-mobility, energy management solutions** and **energy market integration**. We have also invested in the expansion of the high-potential **power-to-gas business** at an early stage.

The business initiatives that are essential for achieving the strategic objectives are bundled within the strategic areas of action. They are implemented with a clear focus on the business units.

SMA is thus optimally positioned for future business success and sustainable growth. With its portfolio of products, systems and solutions for all PV segments and applications, its level of system expertise and its global presence, the SMA group thus makes a significant contribution to the rapid and sustainable transformation of the world's energy supply structures and exploits the opportunities arising from the megatrends of decentralization, decarbonization and digitalization.

Strategic corporate objectives

The strategic corporate objectives form the basis for the future viability and long-term corporate success of the SMA group. Annual ambition levels were defined for each objective up to 2025, the achievement of which will be ensured through clearly defined and measurable interim objectives.

OBJECTIVE 1: CLOSER TO THE CUSTOMER

We inspire our customers with a high level of user-friendliness and solution-oriented cooperation.

The future corporate success of the SMA group will depend largely on us aligning our actions even more consistently with the requirements of our customers. Customer focus is therefore purposefully the first objective of our strategy.

With the company-wide SPIRIT program launched in 2022, we have set ourselves the objective of systematically bringing our processes and structures in line with the various customer segments and designing them in such a way that we can develop and deliver even faster, more seamlessly and in a more demand-oriented manner. We are thus able to align our portfolio of systems and solutions even more precisely to the current and future requirements of the various customer segments.

SPIRIT has allowed us to successfully set the course for this in the 2022 reporting year. First, we optimized our sales and service processes and brought them even more in line with regional requirements. Based on the different requirements of customers in the Home Solutions, Commercial & Industrial Solutions and Large Scale & Project Solutions business segments, the next step was to define and implement customer-centric end-to-end processes that will strengthen operational responsibility within the segments, significantly speed up decision-making and optimize customer understanding throughout the organization. The organizational change has been and will continue to be accompanied by broad-based communication activities and supporting training courses to drive forward process-based operations at the company and make the progress of the program transparent to all executives and employees. Filling key management roles to ensure a smooth transition to the new process organization also marked an important milestone.

For 2023, we have set ourselves the objective of implementing the new understanding of roles and processes throughout the company and laying a stable foundation for the new process organization. This particularly includes continuing the comprehensive training and education programs, realigning the committee structure and decision-making processes and fully integrating the global functions and the regions into the process organization.

We will also align our portfolio of systems and solutions even more precisely to the current and future requirements of the various customer segments and position the SMA umbrella brand sustainably in the market.

OBJECTIVE 2: STABILITY THROUGH PROFITABILITY

We are sustainably increasing our profitability through the further development of our core business and the targeted development of new business areas.

A sustainable and stable profitability is the basis for entrepreneurial freedom, strategic investments and economic security. We have therefore defined increasing sales and profit as key objective categories in this respect. We want to reach an EBITDA margin of at least 10% by no later than 2025.

In 2022, we achieved a significant reduction in quality costs and cost of sales in the quality and cost discipline objective categories thanks partly to the successful implementation of the QCore quality program. Despite supply bottlenecks caused in particular by the Ukraine war, the company's net cash remained at a stable level. In addition, further measures to increase the value of the company were successfully implemented.

As part of our positioning as a systems and solutions provider, we will be focusing in 2023 on the market launch of new cross-segment platforms and intend, in particular, to drive forward and further optimize our delivery capacity measures. We will also be focusing our activities on adapting strategic project portfolio management to the new process landscape under the SPIRIT program in order to simplify and accelerate prioritization and project execution. In addition, the stabilization of cash flow is one of the key annual objectives of the SMA group in 2023.

OBJECTIVE 3: HOLISTIC SUSTAINABILITY

We live sustainability in all areas of the company and take over a leading role in shaping a better future.

Holistic sustainability in all areas of the company is one of the key objectives at the heart of our strategy. The Managing Board is thereby not only underlining the considerable importance of the topic of sustainability within the SMA group, but also taking account of the ever-increasing interest and expectations of major stakeholder groups. Our aspiration for the "holistic sustainability" objective is to integrate sustainability into all areas of the company and to take a leading role in creating a better future with the SMA group. Sustainability risks and opportunities must therefore be assessed in all business processes and encompass the entire value chain, as every area of the company can make a contribution toward achieving the objectives. Our holistic sustainability strategy comprises four areas of action: environment & energy, employees, governance & ethical business and product stewardship.

In the environment & energy area of action, we strive to keep the environmental impact of our business activities as low as possible and protect the climate by handling resources responsibly along the value chain and using renewable energies. We thus help establish the conditions for a livable future for all people.

Committed, highly motivated and skilled employees are an essential factor in the success of the SMA group. Our goals and measures in the employees area of action take this into account. Ensuring the health and safety of our employees is just as much a part of securing the future of the company as bringing diversity to life. We promote diversity and equal opportunities and recognize the excellent commitment of our employees through fair pay and company benefits.

In the governance & ethical business area of action, we are continuously working on improving our processes and structures to ensure good corporate governance as well as integrity and compliance. We select our business partners with care and are committed to protecting human rights and acting sustainably and responsibly throughout the supply chain.

In the product stewardship area of action, it is our aim to meet our customers' incredibly exacting quality requirements and provide them with products with a long lifetime. For us, product stewardship means taking responsibility for the impact of our products throughout the product life cycle, from their development to the end of their lifetime.

Detailed information on the sustainability strategy and management of the SMA group and on development and progress within our four areas of action of sustainability in the reporting year can be found in the "[Combined non-financial statement](#)" section.

OBJECTIVE 4: SHAPING THE FUTURE WITH INNOVATIONS

We use our technological expertise, experience and innovative strength to position SMA for the future in existing and new business fields.

Our high capacity for innovation is what fundamentally sets us apart from the competition. To enable maximum focus on innovation in development projects, the areas of "Research" and "Development" at SMA are located and operated as organizationally separate areas.

We also use our high capacity for innovation primarily to secure the future viability of the SMA group with new digital approaches. This includes prioritizing our innovation activities and investments with a view to adding value for customers, as well as systematically increasing our capacity for innovation. By 2025, we have also set ourselves the objective of aligning complex processes comprehensively across all departments within the organization. Digitalization plays a decisive role in this context, too. Accordingly, we also aim to establish an end-to-end digital system

landscape that will enable the SMA group to flexibly map new business models as well. This is intended to align SMA's system and solution offering even more effectively with customer requirements and to further develop or establish existing and new channels for the respective customer groups.

In the 2022 reporting period, we successfully pushed forward with digitalization in the company with the completion of Release 1 as part of the "Digital Core" program established in 2020. In this highly relevant section of the program, more than 200 experts from all areas of the company created the basis for further developing core processes and IT applications of the SMA group in order to reflect the high complexity and dynamics of the market environment within the company.

In 2023, in addition to expanding systemic trend management and process implementation for scaling new business models, we will be focusing in particular on specifying and preparing Digital Core Release 2. The objective in this respect is to ensure seamless and process-based implementation of the digital strategy within the SMA group.

OBJECTIVE 5: POWERFUL PARTNERSHIPS

We develop a powerful partner network and take advantage of the opportunities it creates.

Our systems and solutions business thrives on powerful partnerships. They are the key to comprehensive solutions with high customer value and a broad range of applications. To be successful in this area, our management processes are geared to the targeted integration of partners with whom we are shaping the energy supply of the future. In this respect, the SMA group will be able to benefit from new business opportunities and broader room for maneuver. By improving our efficiency, productivity and competitiveness we are also increasing our internal and external impact.

In 2022, we successfully completed the analysis of key areas of action for the implementation of systematic partner management and began taking initial measures within the SMA group. These steps were supported by the Partner Management Board introduced in 2021, the membership of which is aligned with the new process organization. The main objective of this was to pursue a cross-segment approach, establish process stability and define the key strategic implications for future partnerships. This includes making the most of synergies as well as optimizing our integration capabilities through strategic partnerships.

One of our goals for 2023 is to develop and implement a governance model for the systematic integration of partners into the SMA process landscape. This also includes the development of standards for the integration of partners into the end-to-end value chain of the SMA group.

Enterprise management

Overview

The SMA group's corporate management is based on the leading indicators and financial management parameters outlined below. Corporate management also incorporates non-financial performance indicators. More information on this can be found in the "[Combined non-financial statement](#)" section.

Leading indicators

To be able to respond to market changes in a timely manner, it is exceedingly important for the SMA group to recognize opportunities and risks early on. To achieve this, we will have ongoing discussions about what are commonly referred to as operative leading indicators at both the Managing Board and segment level with the vice presidents and the general managers of SMA subsidiaries. Indicators relevant to the SMA group include changes in PV system incentive programs and their effect on regional market potential, growth and competitiveness of the SMA group in regional markets, customer acceptance of new products as well as market-related information stemming from discussions with customers, suppliers and associations. The myriad of influencing factors and the complex way they interact make it difficult to produce a detailed forecast that holds up long term.

As part of annual and medium-term planning, the Managing Board specifically discusses opportunities and risks with regard to markets and sales volumes with the sales and segment heads and records the final assumptions for planning. In the reporting period, the Managing Board and segment management were informed on a monthly basis about the financial development of the entire SMA group and the individual segments. They were continuously compared with planning assumptions. In the event of deviations or unforeseen events, short-term countermeasures could therefore be taken on the basis of intra-year forecasts.

Financial management parameters

In 2022, the SMA group used the following key financial management parameters for its operative business as explained below. Compared with the previous year, there were no changes in the calculation of key figures or in the management system.

SALES

Sales include all the sales generated over the reporting period. Because the market for inverters was shaped partly by plummeting prices, we measure inverter output sold along with sales. We calculate sales at both the group and segment level. In addition, sales and the contribution margin are calculated at the product group level on a monthly basis.

OPERATING PROFIT (EBIT)/OPERATIVE EARNINGS MARGIN

In addition to sales and the cost of sales, the operating profit includes functional costs and other operating expenses and income. We use this key figure to measure the profitability of the individual segments and the group. To determine the operative earnings margin, we calculate operating profit in relation to total sales. We measure the operating profit and operative earnings margin at both the group and segment level.

EARNINGS BEFORE DEPRECIATION AND AMORTIZATION (EBITDA/EBITDA MARGIN)

We calculate operating earnings before interest, income taxes, depreciation and amortization (EBITDA) based on operating earnings (EBIT), plus depreciation and amortization of fixed and intangible assets. To determine the EBITDA margin we calculate the operating earnings before interest, income taxes, depreciation and amortization in relation to total sales. We use these key figures to measure profitability at the group level, excluding imputed depreciation of investments made.

NET WORKING CAPITAL/NET WORKING CAPITAL RATIO

In addition to inventories, net working capital comprises trade receivables, trade payables, prepayments received from customers and prepayments made to suppliers. We measure our customers' and suppliers' accounts receivables as well as product manufacturing inventories regularly in relation to sales over the last 12 months. We measure and manage net working capital at the corporate group level.

CAPITAL EXPENDITURE

Capital expenditure is another key driver of liquidity planning. To manage capital expenditure, we formulate budgets as part of our annual planning, which the Managing Board approves over the course of the fiscal year. This applies particularly to large-scale capital expenditure projects, which are additionally evaluated with a profitability calculation. We manage capital expenditure at the corporate group level.

NET CASH

With net cash, we review our own financing possibilities for the ongoing business like net working capital and capital expenditure. It includes liquid funds and securities contained within working capital and cash on hand pledged as collateral less interest-bearing financial liabilities to banks. We manage net cash at the corporate group level.

Intragroup reporting and management

INTRAGROUP REPORTING

The monthly reporting includes, among other information, detailed status reports on orders placed and order volumes, the amount of inverter output sold, sales figures, results of operation, cash flow statements, research and development activities, investments and net working capital. The aim is to compare changes in decisive items on the income statement and balance sheet both with the budget and figures of the previous month and to take any corrective measures necessary. Reporting is mapped using SAP Analytics Cloud (SAC), and an electronic management information system (SAP Business Warehouse) serves as the home for the information.

INTRAGROUP MANAGEMENT SYSTEM

In the reporting period, the basic elements of the intragroup management system were the regular Managing Board and Supervisory Board meetings as well as the monthly discussions on results with the segment heads. Strategy implementation was also discussed during quarterly business reviews with the segments as was an assessment on the progress of objectives. In addition, the intragroup management system encompasses the regular Risks and Opportunities Report and the report prepared by the Internal Audit department.

Research and development

The SMA group uses its systems expertise to develop holistic solutions comprising hardware, software and (digital) services for different applications in the fields of photovoltaics, battery-storage systems and electric vehicle charging, as well as for comprehensive energy management across all segments and sectors (power generators, household appliances, storage systems, heating, ventilation and air conditioning, e-mobility). To offer our customers technically mature and economic system solutions in all market segments and regions, we selectively collaborate with strong partners. With our continuous research and our market- and customer-focused development, we can further reduce the consumer cost of PV electricity, optimize the use of energy and decrease the complexity in the new, decentralized and digital energy world.

Forward-looking development approach

With the growing importance of photovoltaics for the global power generation and the increasing integration of PV systems into complete systems, system technology demands on system integration, connectivity and the provision of grid services for a reliable energy supply are taking center stage. In this context, the SMA group's development focus is on highly integrated and digitalized solutions that cover as many functions as possible (all-in-one solution). Future focus areas of our research and development activities also include energy storage systems, e-mobility, energy market integration and power-to-gas.

In product development, we are pursuing a platform strategy aimed at being able to quickly respond to market changes and systematically reducing product costs. By standardizing the architecture of the core components and integrating key system functions, we are increasing the proportion of identical components and software modules across the entire portfolio while also reducing the number of components in the system in order to offer our customers highly efficient solutions. Customization in line with different markets and customer needs is implemented partly through the connection area and software as well as through different power classes based on the platform.¹

SMA Solar Technology AG was granted 1,729 patents and utility models worldwide by the end of the reporting period. Additionally, more than 500 other patent applications were still pending as of December 31, 2022. Furthermore, SMA Solar Technology AG holds the rights to 1,450 trademarks.

In addition to the (further) development of solutions for the efficient generation, storage and use of solar energy, for electric vehicle charging and charging management and for intelligent energy management across various sectors, the focus of development in the reporting period was on optimizing hydrogen production. The SMA group was already involved in the implementation of related projects on several continents (see "Project business" section).

Research and development expenses of the SMA group

in € million	2022	2021	2020	2019	2018
Research and development expenses	86.8	77.7	71.2	63.1	67.8
of which capitalized development projects	35.2	27.4	15.2	10.9	18.8
Depreciation on capitalized development projects (scheduled)	6.9	8.8	9.1	9.0	21.4
Research and development ratio in % in relation to sales	8.1	7.9	6.9	6.9	8.9

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Holistic solutions for the energy supply of the future¹

PRIVATE APPLICATIONS: HYBRID INVERTERS AT THE HEART OF RENEWABLE ENERGY MANAGEMENT

With the market launch of the Sunny Tripower Smart Energy in the first quarter of 2022, the SMA group closed a gap in its portfolio in the Home Solutions segment. The three-phase hybrid inverter with integrated backup function is available with four power classes for use in private homes. As a solar and battery inverter in one, it manages the energy flows between the PV generator, the connected battery and the household's public electricity supply via the Sunny Home Manager 2.0. The Sunny Tripower Smart Energy thus reduces the power drawn from the utility grid and, combined with the backup function, continues supplying important home appliances in the event of a power outage. Integrated services and software solutions ensure user convenience and safety. This includes the digital SMA Smart Connected service solution for swift service in the event of a fault.

For drivers of electric vehicles, the new SMA JOIN Charge app provides a Europe-wide overview of available charging stations. Drivers can navigate to one of these locations, start charging and pay and view statements. The app has been available initially in Germany since May 2022.

SMA Smart Connected monitors PV systems 24/7, analyzes anomalies, reports these directly to the SMA service organization, if necessary, and informs system operators and/or installers about system data, faults and measures. Spare parts or replacement devices are sent automatically or reserved for the installer in the online shop. The high degree of automation shortens and simplifies the service process and minimizes PV system downtimes.

The SMA apps for solar power professionals and system operators were also supplemented with additional functions. The SMA 360° app for solar power professionals now allows installers to connect system simulation, planning, commissioning and monitoring as well as automatic notifications when servicing is required. The SMA Energy app for end users was expanded by a module for managing the charging of electric vehicles.

In addition to its own electricity tariff SMA JOIN, the SMA group has introduced the JOIN Charge Card for charging electric vehicles with renewable electricity in Germany.

COMMERCIAL APPLICATIONS: INVERTER WITH ENERGY MANAGEMENT FUNCTIONS AND FLEET CHARGING SOLUTION

In the Commercial & Industrial (C&I) Solutions segment, the SMA group expanded the Sunny Design software for the planning of PV systems by shade analysis taking into account shadow progression and by the possibility of integrating up to six different sub-projects into the planning of one PV system, such as on multiple roofs, in the reporting period. Additional functional expansions are currently being implemented, particularly with regard to planning complex electric vehicle charging solutions in the commercial sector.

In the reporting year, the SMA group presented the Sunny Tripower X. For the first time, the three-phase PV inverter combines modern solar power generation with integrated functions of the SMA Data Manager M powered by ennexOS. In commercial and private energy systems with up to 135 kW power, the Sunny Tripower X takes over the monitoring, control and grid-compliant power control of up to five inverters, implements participation in the energy market and in the future will also control battery-storage systems and consumers. Delivery started in the third quarter of 2022.

At the Intersolar Europe industry trade fair in May 2022, the SMA group presented the SMA EV Charger Business for the first time. For companies with electrically operated vehicle fleets, the new charging solution ensures that charging electric vehicles with solar power from the company's own PV system takes priority. Combined with the SMA Data Manager M powered by ennexOS, the SMA EV Charger Business connects up to 20 charging points and coordinates the charging processes. The charging solution provides services such as dynamic charging management and settlement via cloud connection of the "Smartbox-Compact" from our subsidiary conevea. Deliveries will begin in January 2023.

On the U.S. market, the new STP-X inverter for the local market was presented at the end of the third quarter of 2022. Delivery is planned for the start of the second quarter of 2023. In addition, the SMA group is currently working on new models in the Sunny Tripower product family (the next generation of three-phase SMA PV inverters for small to medium-sized commercial applications) for the global PV markets. It is also working on new models for Sunny Island and Sunny Tripower Storage (battery inverters for the integration of storage into both on-grid and off-grid power supply systems). The new inverters will complement the range of the SMA Energy System Business.

¹ The following section is not a mandatory component of the combined management report as defined in Sections 289, 315 HGB in conjunction with GAS 20, and therefore not a subject of the financial audit.

In the past fiscal year, conevea expanded the product range for intelligent charging solutions for electric vehicles. As of December 31, 2022, conevea managed over 1,500 charging points at more than 100 German and international locations of logistics companies, car dealerships and SMEs with its dynamic load control solution for optimized charging of electric vehicles. At the same time, conevea ensures the internal administration and billing of the charging points (CPO services). conevea is also pressing ahead with the integration of charging infrastructure, battery-storage systems and other flexible loads into the energy markets for cost-optimized operation, for example at the Hilden charging park. Starting 2023, these conevea (charging) solutions are also incorporated into the expanded SMA Energy System Business so as to offer commercial enterprises a complete solution for climate-neutral charging and the management and billing of electric vehicle fleets.

PROJECT BUSINESS: OPTIMIZED GRID INTEGRATION AND HYDROGEN PRODUCTION

In the Large Scale & Project Solutions segment, development in the reporting period focused on customer-specific complete solutions for PV, storage and power-to-gas applications.

SMA's medium-voltage power stations combine PV or battery inverters with matched medium-voltage technology in one container. With power of up to 6,000 kW and new, grid-forming functions, they also meet future requirements for integrated energy and maintaining grid stability. The SMA group is continuously developing the grid-forming functions of its solutions. They thus make a considerable contribution to integrating ever greater amounts of locally generated power from renewable sources into the grids.

In the area of green hydrogen generation, the SMA group introduced the Electrolyzer Converter for the grid-friendly processing of electricity for electrolysis into the growing market. As a turnkey container solution, including medium-voltage technology, this SMA development enables the construction of highly efficient systems without additional filters or compensation units for the operation of the electrolyzer. The converter has a wide DC operating window for electrolyzer operation. This makes it possible to work with almost all types of electrolyzers. Carefully selected low- and medium-voltage components ensure highly efficient and reliable operation over the entire lifetime of the electrolyzers.

The service offering for PV power plants was systematically expanded in the reporting period. This includes free remote service from experts for quick fault analysis and rectification and the provision of software updates via remote transmission according to the highest security standards and system availability. The SMA Virtual Support app enables the maintenance of central inverters on-site with expert support via remote service for both corrective and preventive maintenance, including the replacement of components.

COMBINED NON-FINANCIAL STATEMENT

Basic information on the combined non-financial statement

In this combined non-financial statement, we report on the developments and progress in our areas of action for sustainability in the 2022 fiscal year in accordance with the statutory requirements under Section 289c-e and Section 315c of the German Commercial Code (HGB) and Article 8 of the Taxonomy Regulation. Some of the wording and requirements used in the Taxonomy Regulation and the complementary delegated acts are still subject to interpretation uncertainty at present. An interpretation thereof by SMA Solar Technology AG's legal representatives is given in this combined non-financial statement. The combined non-financial statement requires the approval of the Managing Board and Supervisory Board of SMA Solar Technology AG. The reported information has been prepared with reference to the Global Reporting Initiative (GRI) Standards. The GRI content index given at the end of the combined non-financial statement provides a detailed overview of where in the SMA Annual Report the relevant information regarding the GRI can be found. Information on the SMA group's business model, on products and services as well as on the sales markets can be found in the ["Basic information about the group"](#) section.

NON-FINANCIAL RISKS

Non-financial risks in connection with the SMA group's business activities, products and services, and business relationships are described in the ["Risks and opportunities report"](#) section if these risks meet or exceed both the criteria and financial thresholds for risk and opportunity management set out in this report.

We have also identified a material non-financial risk in accordance with Section 289c (3) HGB that is relevant for 2022. The lack of transparency in the supply chain and the purchasing of components from high-risk countries makes it impossible to rule out the possibility that our suppliers and, particularly, our suppliers' suppliers may be breaching international human rights standards that the SMA group has pledged to uphold. With respect to our direct suppliers, we are countering this risk through several measures. In addition to the obligation for suppliers to acknowledge

the ["SMA Business Partner Code of Conduct,"](#) we are ensuring that we monitor more suppliers for their sustainability performance and compliance with human rights regulations by switching to a new supplier risk management software acquired in the reporting year. In 2023, we are also going to set up an audit system that covers sustainability issues in addition to the quality issues already addressed. As a way of working toward fulfillment of human rights obligations in the preliminary stages of the supply chain as well, we already have a requirement for our suppliers to pass on all obligations under our SMA Business Partner Code of Conduct to their suppliers. Furthermore, as a backer of the industry association SolarPower Europe's Solar Stewardship Initiative, we are working on improving transparency throughout the supply chain. More information on the actions we are taking and our objectives regarding human rights in the supply chain can be found in the ["Sustainable supply chains"](#) section.

REPORTING BOUNDARIES

Unless stated otherwise, all disclosures in the governance & ethical business and product stewardship areas of action relate to the entire SMA group, including the parent company SMA Solar Technology AG. The companies included therefore correspond to the list of fully consolidated group companies published in the ["Notes SMA group."](#) This also applies to the employees area of action, with the exception of the ["occupational health & safety"](#) aspect. Unless stated otherwise, all disclosures in the environment & energy area of action and in the ["occupational health & safety"](#) aspect include all major locations. We have defined major locations as locations that occupy 400 square meters or more. In addition to the parent company SMA Solar Technology AG, these include locations of the group companies coneva GmbH, SMA Solar Technology America LLC, SMA Magnetics Sp. z o. o., SMA France S. A. S., SMA Italia S.r.l., SMA Australia Pty. Ltd., SMA Solar India Private Limited, SMA Japan Kabushiki Kaisha, SMA Benelux BV and SMA Ibérica Tecnología Solar, S.L. The information relates to the report period from January 1, 2022, to December 31, 2022. It is reported annually. The combined non-financial statement 2022 will be published on March 30, 2023, in the Combined Management Report 2022 of SMA Solar Technology AG.

COLLECTION OF KEY FIGURES

The key figures in all areas of action were gathered and verified by the responsible departments to ensure that the information was complete and correct. The data in the environment & energy area of action and in the “occupational health & safety” aspect were largely compiled using the software WeSustain. The key figures on energy at the headquarters in Niestetal/Kassel, Germany, were managed using the software InterWatt. The key financial and personnel figures were largely recorded using global SAP systems. The risk assessment of suppliers was performed using RiskMethods. When determining the sustainability performance of our suppliers, we work with EcoVadis. Key figures relating to the “integrity & compliance” aspect are managed using datasheets. An overview of sustainability key figures can be found at the end of the combined non-financial statement. We publish further information about sustainability in the SMA group on our [website](#).

EXTERNAL AUDIT

BDO AG Wirtschaftsprüfungsgesellschaft performed an audit of the combined non-financial statement in accordance with ISAE 3000 rev with limited assurance. The “Independent auditor’s limited assurance report” can be found starting on page 164 et seq.

UN SUSTAINABLE DEVELOPMENT GOALS

The UN Sustainable Development Goals (SDGs) in the areas of environment, economy and social welfare are at the heart of the 2030 Agenda for Sustainable Development adopted by all member states of the United Nations at the UN Sustainable Development Summit 2015. It is a joint roadmap for a future characterized by peace and prosperity for people and the planet. All participants in society are called upon to help achieve these goals. The Managing Board of SMA Solar Technology AG is committed to this responsibility. In 2021, the contribution of SMA’s business activities to the SDGs was evaluated down to the level of the SDG sub-goals. Within the main aspects, the SMA group’s activities contribute to 9 of the 17 SDGs. Its business activities have the greatest influence on SDG 7 “Affordable and clean energy”.

UN GLOBAL COMPACT

In the opinion of SMA’s Managing Board, producing technologies for the decarbonization of the energy supply is not enough for a holistic understanding of sustainability. It is equally important for these solutions to be produced in accordance with high environmental, social and governance standards. Against this backdrop, the Managing Board is committed to the ten principles of the UN Global Compact. SMA Solar Technology AG joined

this United Nations initiative in 2011. The UN Global Compact sets out ten principles relating to human rights, labor standards, environmental protection and the fight against corruption, which are based on the central conventions of the United Nations. We report on our progress with respect to the UN Global Compact within the scope of the new Communication on Progress (CoP) format.

Sustainability management

For over 40 years, the SMA group has played a major part in the conversion to a climate-friendly electricity supply based on renewable energies worldwide. Our products and solutions are used all over the world for sustainable and efficient power generation, storage and use. In off-grid areas that do not yet have their own utility grid, SMA stand-alone solutions provide a reliable electricity supply, paving the way to economic and social development. As such, the SMA group’s business activities directly contribute to UN SDG 7 “Affordable and clean energy” and take an active part in combating the global climate crisis.

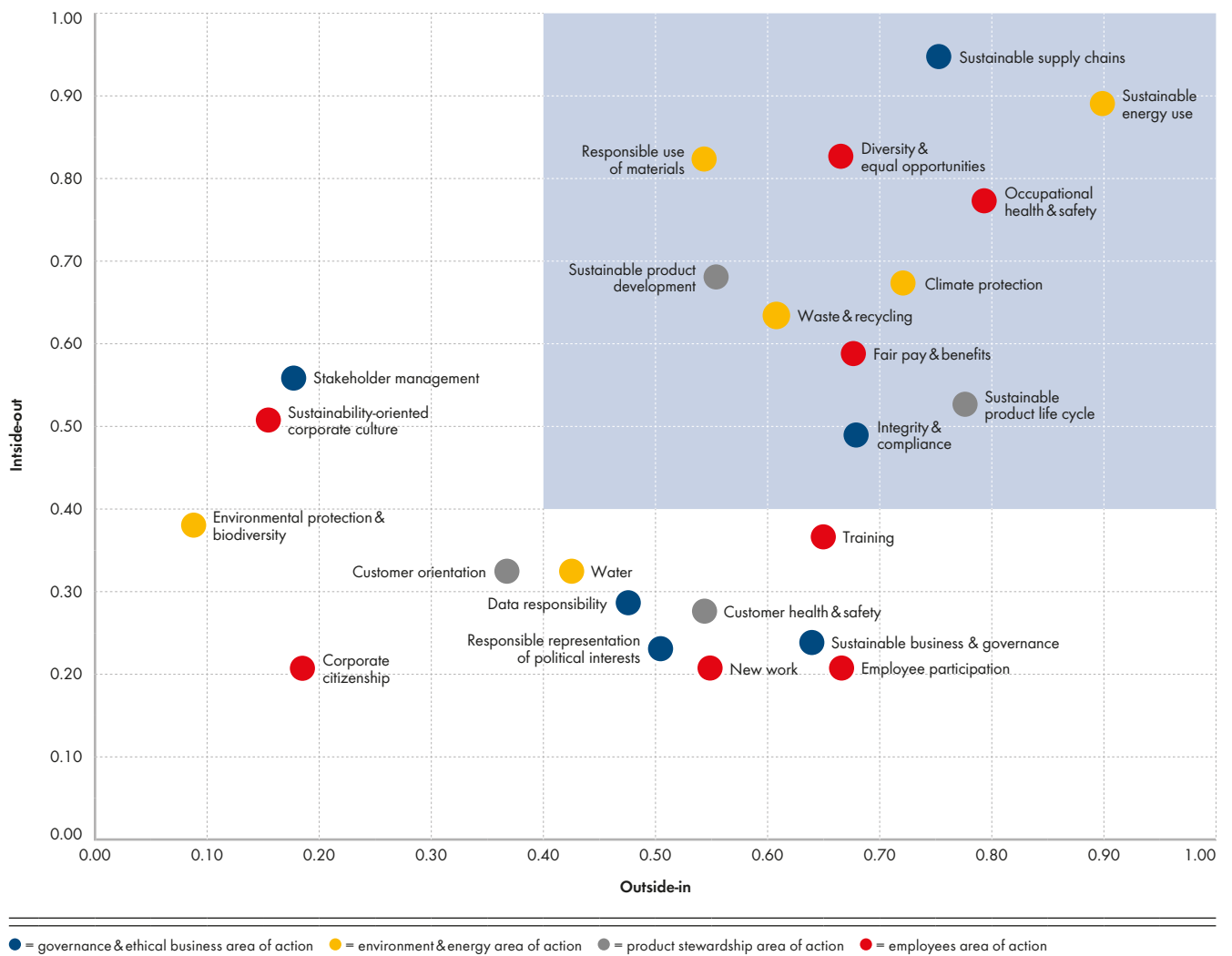
For the SMA group, sustainable business means making a significant contribution to the company’s long-term success by way of responsible and respectful treatment of people, the environment and resources with increasing use of decentralized renewable energies along the entire value chain.

MATERIALITY ANALYSIS

Our sustainability management comprises four areas of action: governance & ethical business, environment & energy, product stewardship and employees.

The SMA group identifies the materiality of the sustainability aspects within these four areas of action by means of a materiality analysis that was created in 2021. The materiality analysis maps the outside-in and inside-out perspectives of sustainability aspects. The outside-in perspective provides an understanding of how sustainability aspects were assessed by major stakeholders. For example, requirements of politicians and legislators are included, as are customer perspectives. The inside-out perspective presents the influence that the SMA group can have on the aspects assessed. To this end, we have performed a detailed evaluation of the UN Sustainable Development Goals and their influence on the SMA group’s value chain. The materiality analysis was prepared in conjunction with external consultants and has been approved by the Managing Board of SMA Solar Technology AG.

SMA group materiality matrix



We have examined the material aspects and SDGs to which we thus contribute along the entire SMA value chain and presented the points in the value chain where they are relevant.

Delineation of material aspects and SDGs along the value chain

Area of action	Key issues	Research and development	Procurement	Production	Delivery logistics	Product use	Product end of life	SDG sub-goal
Environment & energy	Sustainable energy use	x	x	x	x	x		7.1, 7.2
	Responsible use of materials	x	x	x	x			8.4, 12.2
	Waste & recycling		x	x	x	x		12.4, 12.5
	Climate protection	x	x	x	x	x	x	7.3, 12.2, 13.2
Employees	Occupational health & safety		x	x	x	x		8.8
	Diversity & equal opportunities		x	x	x			4.3, 5.1, 5.5, 8.5, 10.2, 10.3
	Fair pay & benefits		x	x	x			8.5, 10.1
Governance & ethical business	Sustainable supply chains	x	x	x				5.2, 8.7, 12.7, 16.2
	Integrity & compliance	x	x	x	x	x		16.5
Product stewardship	Sustainable product development	x	x			x	x	7.b, 9.5
	Sustainable product life cycle	x		x		x	x	12.4, 12.5

No significant changes were identified in the annual materiality review of sustainability aspects for 2022. We have incorporated the aspect “sustainable business & governance” into the list of topics covered in the combined non-financial statement. In this section, alongside the EU taxonomy we will present our rules of conduct and our management of sustainability issues. In the environment & energy area of action, we have renamed the “renewable energies” aspect “sustainable energy use” to give both sub-aspects covered, “renewable energies” and “energy efficiency,” an equal weighting. We have focused the “product development and innovation” aspect on “sustainable product development” as the topic of innovation forms a separate component of the SMA Strategy 2025 and is treated as a stand-alone strategic issue. Further information can be found in the Combined Management Report in the “Strategy” section. In addition, considering the growing relevance of issues like nature conservation and biodiversity as well as land use conflicts in the SMA group’s

downstream value chain, we believe it is necessary to address current debates and potential conflicts of use. Therefore, we have included the “nature conservation and biodiversity” aspect in the environment & energy area of action even though the aspect continues to be immaterial for the SMA group.

Under new regulatory requirements in connection with the CSRD from 2025 onward, we are planning to update our materiality analysis for 2023, which will involve implementing the concept of double materiality. This will entail us incorporating an assessment of the financial impact in the outside-in perspective. For this reason, we have also decided to postpone the action of updating the SMA sustainability mission statement that was originally planned for 2022 until 2023.

STAKEHOLDER MANAGEMENT

We place high value on ongoing, transparent dialogue with important stakeholder groups, which is a catalyst for the further development of our sustainable management. We define stakeholders as individuals or organizations that could influence our decisions and activities or that could be influenced by decisions and activities of the SMA group. We report important events within the company in ad hoc messages, press releases, on our website and social media channels.

One important tool for assessing opportunities and risks relating to our stakeholders is our annual stakeholder analysis, which gives us an insight into the SMA group's stakeholders and their expectations. We analyze the data and prioritize the expectations. If prioritized expectations are not met by the SMA group, we define appropriate measures. The most important stakeholder groups for us are employees, customers, investors and analysts, politicians and legislators, suppliers, service partners and service providers as well as media and non-government organizations (NGOs).

Employees

Open and trustful interaction with each other as well as the highest possible transparency and involvement of employees, trainees, learners and temporary employees in corporate decisions are highly important to us. That is why we not only provide them with regular and comprehensive information about developments and changes in the company, but also develop important topics and content in a participatory way.

Dialogue with employees, trainees, learners and temporary employees once again largely took place virtually in the reporting year due to the coronavirus pandemic. Members of the Group Management Committee informed them about the company's current situation and major events in video messages in 2022. In addition, two virtual works meetings were held, with employees, trainees, learners and temporary employees able to address questions to the Managing Board and the Works Council online both in advance and directly. New employees were also welcomed using the digital format New@SMA in the reporting year and had the opportunity to meet the Managing Board.

We normally use our annual employee appraisals for employees worldwide to coordinate their tasks and the associated qualification requirements, to measure performance and to provide feedback on collaboration in an exchange between manager and employee.

Global employee surveys are generally held every two years and help us identify important topics for employees, trainees and learners. The last survey was held in 2020. One integral part of the survey is the topic area of "Engagement," which addressed topics relating to the work situation, management and team spirit in the 2020 survey. The evaluation results in a transparent Engagement-KPI across all areas of the SMA group and thus allows for targeted improvements. Measures are derived by the business divisions in collaboration with the HR department. The ongoing process of realigning the SMA group's organizational structure meant that no employee survey was carried out in 2022. Once the realignment under the SPIRIT project is complete, as part of the transformation process the survey will be carried out within the new corporate structure in 2024 to identify important issues and gather information on initial employee experiences of the new structure.

In addition, executives and responsible project managers can conduct short "pulse check" surveys in collaboration with the HR department, which can be used to measure the mood in change processes, for example.

Customers

The significant importance that our customers hold for the SMA group's business success is reflected within the SMA Strategy 2025 in the objective "Closer to the customer." With this in mind, we oriented the SMA group's entire organizational structure toward customer-centric processes in the reporting year. Further information on the SMA Strategy 2025 can be found in the Combined Management Report in the "Strategy" section.

The dialogue with our customers takes place in particular at customer events, as part of the SMA partner program, at SMA Solar Academy seminars and regular international trade fairs. Despite the continuing restrictions imposed due to the coronavirus pandemic, we continued this dialogue and close collaboration with our customers in 2022. To this end, we used various analog and virtual formats and communication channels.

In addition to livestreams with interactive product presentations and panel discussions for a global audience, these included 663 seminars and webinars held by the SMA Solar Academy with a total of approximately 17,000 participants worldwide. The “Meet-Listen-Act” format was also introduced in the reporting year, where employees from different areas meet with customers to discuss any problems with them and work on solutions in a targeted way. Under this format, in November a customer attended the SMA Management Meeting for the first time to report back on their experience of working with the SMA group.

Investors and analysts

We also aim to ensure transparency, up-to-date information and credibility in our capital market communication. Due to the coronavirus pandemic, our SMA Annual General Meeting was also held virtually in 2022. The Capital Markets Day, on the other hand, was held in person at the Intersolar trade fair in Munich, Germany. In addition, the Chief Financial Officer took part in roadshows and conferences and held regular phone calls with analysts. We addressed the capital market’s growing need for information on companies’ ESG performance by taking part in the CDP rating again in the reporting year. We also actively participated again in several other ESG ratings by international rating agencies. An overview of the ratings and rankings can be found in the “Sustainable business & governance” section.

Politicians and legislators

As a globally operating company, we are subject to a wide variety of political changes and decisions that affect our business activities. To safeguard the future of the SMA group, it is important to us to communicate our company’s interests in open dialogue with governments, industry associations and organizations. We also respond to our business partners’ suggestions and interests with the same openness. Our principles on political dialogue and representation of interests form the basis for a set of responsible, reliable and honest practices aimed at reconciling commercial and social interests. In the reporting year, we did not make any financial donations to political parties or to related organizations or individuals.

We are organized in industry associations for the purpose of representing our interests. The main national and international advocacy groups include SolarPower Europe, the Solar Energy Industries Association, Bundesverband Solarwirtschaft (German Solar Industry Association), Bundesverband Erneuerbare Energie (German Renewable Energy Federation), Zentralverband Elektrotechnik (German Electro and Digital Industry Association) and Verband der Elektrotechnik, Elektronik und Informationstechnik (Association for Electrical, Electronic and Information Technologies). As part of our membership of SolarPower Europe, in the reporting year the Chief Executive Officer of SMA Solar Technology AG joined forces with representatives of other companies in the industry to advocate for ambitious growth targets for renewable energies and the expansion of the European solar industry in meetings with members of the European Parliament and in an open letter to the European Commission.

The SMA group is also a member of the “Allianz für Transformation” (Alliance for Transformation), which was launched by the German federal government in June 2022. The central dialogue between the federal government and decision-makers from business, trade unions and the associations is aiming to underpin the transformation of society toward climate neutrality, digitalization and sustainability in the long term with concrete solutions.

At a local level, we are also involved in the “Klimaschutzrat Kassel” (Climate Protection Council) at our headquarters. This committee, which includes representatives from business, science, civil society, culture, education, youth organizations, religion and social welfare, advises the city council on climate protection. It reflects a broad range of opinions of different stakeholder groups. Taking account of the Climate Protection Council’s recommendations, the city of Kassel has set itself the goal of reaching climate neutrality by 2030 and implementing a 100% decentralized supply of renewable energy.

The table below shows a summary of the main stakeholder groups for the SMA group, their type of involvement and important topics and concerns expressed.

SMA stakeholder dialogue

Stakeholder	Type of involvement	Issues raised and expectations of SMA
Employees	Regular company-wide and division-specific „pulse check“ surveys, work meetings held by the Works Council, intranet communication with comment functions, collaboration tools, leadership events, communication with „climate representatives“, newsletters, division and department meetings, committees, working groups	Working conditions, working hours and location arrangements, mobile working, training, career opportunities, fair, transparent and performance-based remuneration, sustainable corporate strategy, safe jobs, business success, equal opportunities
Politicians/legislators	Organization of events, joint initiatives, proactive contact, participation in consultations, personal meetings, presentation of positions via industry associations, involvement in local initiatives	Securing jobs, location image and positive reputation, specialist support in the field of renewable energies and sustainability strategies, evaluation of solar-specific issues, economic performance, willingness to invest, preparation of positions
Press/NGOs	Press releases, annual press conference, ad hoc messages, social media channels, interviews, background discussions, responding to inquiries, media center on corporate website	Transparent communication, sense of responsibility in dealing with sustainability issues, compliance with global standards (e.g. UN Global Compact), business success, securing jobs, working conditions, location image and positive reputation, renewable energies, technological development and innovation
Customers/key accounts/distributors/project partners/installers	Personal and virtual meetings/sales visits, key account management, events, trade fair presentations, customer survey and customer audits (IMS), surveys to measure satisfaction and identify potential for improvement (service), SMA Solar Academy and partner programs for installers	Quality, reliability, value for money of systems and solutions, contract compliance and delivery reliability, compliance, fairness, sustainability performance of products, product certification, training for installers, innovative applications, lifetime, customer service, holistic collaboration
Investors/analysts/rating agencies	Financial and sustainability reporting, Annual General Meeting, annual Capital Markets Day, one-to-ones with investors and analysts, conferences and roadshows, participation in ESG ratings and rankings	Transparent and extensive communication on the company's development, economic profitability, high sustainability performance/ESG
Service partners/service providers	Bilateral exchange with SMA departments, review meetings, steering committee meetings	Open and constructive communication, reliable partnership, contract compliance, optimal product support
Suppliers	Bilateral dialogue via commodity managers, partnerships, annual or quarterly discussions, Supplier Day, supplier training, participation in supplier evaluations, supplier development with regard to quality, supplier audits	Reliable partnership, compliance with legal regulations, fair competition and ethical conduct, clear guidelines for quality, occupational safety requirements and environmental standards, reliable capacity and procurement planning

Area of action: governance & ethical business



The Managing Board and Supervisory Board of SMA Solar Technology AG firmly believe that effective and transparent corporate governance in accordance with internationally and nationally recognized standards is an essential factor for business success. Observing the principles of good corporate governance is extremely significant for us in order to uphold the trust of shareholders, business partners, employees, other company-affiliated groups and the public in the long term. More information on corporate governance and on the company's corporate bodies and their functions can be found in the Combined Management Report in the "Corporate governance" section.

Sustainable business & governance

VALUES AND PRINCIPLES

Adherence to international principles and standards has gained even more significance with the introduction of the EU taxonomy and the minimum safeguards it contains. Companies are expected to recognize international human rights and labor standards and take action to enforce these standards. By signing the UN Global Compact in 2011, the Managing Board of SMA Solar Technology AG has committed itself to the ten embedded principles covering human rights, labor standards, environmental protection and anti-corruption. The Managing Board is also committed to the OECD Guidelines for Multinational Enterprises, the United Nations Guiding Principles on Business and Human Rights, the International Human Rights Charter and the core labor standards of the International Labour Organization (ILO). The SMA group pledges to uphold these principles and standards, including freedom of association, at all locations worldwide, as long as this does not conflict with specific federal state legislation to which the respective group company is subject. The SMA group does not have a representative office with more than 100 employees in any country where freedom of association and the right to collective bargaining are restricted.

The SMA Business Principles, which have formed the basis for the SMA group's Code of Conduct since 2012, were thoroughly revised in the reporting year and were enacted and republished by the Managing Board under the name "SMA Employee Code of Conduct." The new Code of Conduct places a much stronger emphasis than the previous version on our commitment to holistic sustainability and on the topic of human rights. The Code of Conduct creates a company-wide uniform framework that helps all employees consistently make the right decisions in the interests of the SMA group. It underscores the group's desire to fully comply with and implement all legal and regulatory requirements. It also commits all SMA employees to act ethically, sustainably and with integrity at all times, to assume corporate responsibility and to treat others with respect. The Code of Conduct is publicly available on our [website](#). All SMA employees are bound by the Code of Conduct. The training campaign for the new Code was started after it was published in December 2022 and will be completed in the second quarter of 2023.

STRATEGIC OBJECTIVE OF HOLISTIC SUSTAINABILITY

Sustainability is a vital element of the SMA Strategy 2025. The SMA Solar Technology AG Managing Board is thereby taking account not only of the importance of sustainability within the SMA group, but also of the significantly increasing interest and expectations of major stakeholder groups. The strategic objective of "holistic sustainability" sets out the aspiration of integrating sustainability in all areas of the company and taking on a leading role in creating a better future with the SMA group. Sustainability risks and opportunities must be assessed in all business processes and encompass the entire value chain, as every area of the company can make a contribution toward achieving the objectives.

Sponsors from the executive management level were appointed for all objectives of the SMA Strategy 2025. The program managers for each objective have regular discussions with the sponsors. Within the strategy process, targets and measures are set out for the coming year in collaboration with the subject matter experts, and these count toward the achievement of the objectives for 2025. Sustainability targets require the approval of the Global Communication & Sustainability function and adoption by the Sustainability Committee, which is described in more detail below. The management is briefed on the implementation status of the objectives in quarterly strategy reviews.

The sponsor for the strategic objective of holistic sustainability is the Executive Vice President Technology & Digitalization. The SMA sustainability team is responsible for managing the program. The areas of action and aspects that are the focus of sustainability management and that are to be treated as priorities within the strategic objective of “holistic sustainability” are identified on the basis of a materiality analysis. Further information on the SMA Strategy 2025 can be found in the Combined Management Report in the “Strategy” section.

MANAGEMENT AND CONTROL

To strategically integrate and advance sustainable thinking and action into the company, the SMA Managing Board established a Sustainability Committee in 2021, consisting of members of the Managing Board, top-level managers and experts from the Global Communications & Sustainability function. The Sustainability Committee controls the implementation of the sustainability strategy. The committee makes decisions on sustainability issues and reviews the degree to which the sustainability objectives have been achieved on a quarterly basis. If a greater amount of resources is required for implementation, recommendations for this are also discussed with members of the Managing Board and the Group Management Committee made up of top-level managers.

Since the 2022 fiscal year, the non-financial performance indicators “Proportion of women in the workforce as a whole” and “Assessment of the sustainability performance of A and B suppliers” have been among the performance-related remuneration targets for the Managing Board. Both performance indicators were integrated into the targets set for the long-term bonus for the years 2022 to 2025 within the Managing Board remuneration system that applies for employment contracts concluded since 2021. The performance indicator “Proportion of women in the workforce as a whole” also counts toward the 2022 personal targets of all members of the Managing Board. The remuneration of the Managing Board is detailed in the “Remuneration report” section.

Until the end of May 2022, the SMA group’s sustainability management was based in the Global Quality department. Since June 1, 2022, sustainability management has been located within the newly created Global Communications & Sustainability department. The head of this department reports directly to the Chief Executive Officer.

Since the 2021 fiscal year, sustainability management has been coordinated globally within the SMA group. A Global Sustainability Meeting at which all major group companies of the SMA group are represented has been initiated for this purpose. The goal is to coordinate sustainability initiatives, standards and key figures on a regular basis.

We would like to give our stakeholders access to a transparent and independent assessment of our sustainability performance by participating in international sustainability ratings and rankings, alongside our own sustainability reporting. We are working to continuously improve these assessments and have already had some success. In 2022, the rating agency MSCI ESG raised the sustainability rating of SMA Solar Technology AG to the highest level AAA, we received our first gold medal in the EcoVadis sustainability ratings and our ranking was upgraded from B- to B in the evaluation by CDP.

Our sustainability ratings at a glance

MSCI	AAA (rating scale AAA to CCC)
ISS ESG	Prime (B-) (rating scale A+ to D-)
Sustainalytics	19.7/rank 22 out of 226 companies
EcoVadis	Gold medal
CDP	Climate Change: B

In addition, the SMA group is one of the most sustainable companies in Germany according to an independent evaluation by the magazine “Stern” with Statista from December 2020, and was among the finalists in the German Sustainability Award 2022.

EU TAXONOMY

The European Green Deal aims to achieve sustainable growth in harmony with the well-being and health of society and protection of the environment and biodiversity. At the heart of the growth strategy is the European Union’s target of climate neutrality by 2050. The only way of achieving this is by reorganizing the financial system for greater sustainability and closing the gaps in financing for climate change mitigation.

With the Sustainable Finance package, the European Commission has adopted extensive measures to guide finance flows toward sustainable activities. By creating transparency and introducing disclosure requirements, it aims to make it easier for investors to finance sustainable business activities and technologies. The basis for this is the Taxonomy Regulation.

The EU taxonomy has defined a set of requirements for determining which economic activities are environmentally sustainable and contribute to the goals of the Green Deal. The required KPIs on sales, operating expenditure and capital expenditure for taxonomy-eligible and taxonomy-aligned economic activities have to be reported for the 2022 reporting year. To be classified as taxonomy-aligned, an economic activity must meet technical screening criteria and uphold minimum safeguards set out. The technical screening criteria include that an economic activity must make a significant contribution to one of the environmental objectives of the Taxonomy Regulation and “do no significant harm” (DNSH) to the other environmental objectives. Economic activities that are described in the Taxonomy Regulation and in the complementary delegated acts without having to meet the additional criteria listed for these are classified as taxonomy-eligible.

Having already determined and disclosed the KPIs for the SMA group’s taxonomy-eligible economic activities for the 2021 reporting year, in 2022 we performed an in-depth analysis of taxonomy eligibility and reviewed taxonomy alignment within the scope of a taxonomy project in which we enlisted the help of an external consultant. The core project team comprised experts from the Global Communication & Sustainability and Finance departments. The components of the project, which ran parallel to each other, consisted of reviewing the taxonomy-eligible economic activities and the significant contribution to an environmental objective, checking that the technical screening criteria for avoiding significant harm to other environmental objectives (DNSH criteria) and the minimum safeguards were met, and developing the process for data collection and calculation.

Determining taxonomy-eligible economic activities

All the relevant group companies and departments were involved in the taxonomy project to review the SMA group’s economic activities. The in-depth analysis confirmed the taxonomy-eligible economic activities that we had already identified in 2021, “manufacture of renewable energy technologies” and “installation, maintenance and repair of renewable energy technologies.” The SMA group does not carry out any activities relating to nuclear energy and fossil gas pursuant to Delegated Regulation 2022/1214.

Significant contribution to the environmental objective of climate change mitigation

The SMA group’s taxonomy-eligible economic activities make a significant contribution to climate change mitigation in the area of enabling economic activities as defined in Article 10 (1) (i) in conjunction with Article 16 of the Taxonomy Regulation. Enabling economic activities do not contribute significantly to climate change mitigation with their own performance, but rather play a key role in the decarbonization of the economy, as they make it possible to improve the climate footprint and environmental performance of other activities. In accordance with the Climate Delegated Act, we have identified two economic activities to which the SMA group’s technologies and services are assigned. These are firstly “manufacture of renewable energy technologies” to which we assign our products, and secondly “installation, maintenance and repair of renewable energy technologies” to which we assign our services.

Avoiding significant harm to other environmental objectives

To determine taxonomy alignment, we then conducted a review involving the relevant business areas to check whether the SMA group’s business activities did any significant harm to the five other environmental objectives. The review covered climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems.

Climate change adaptation

To avoid significant harm to the environmental objective of climate change adaptation, the EU taxonomy makes provisions for conducting climate risk and vulnerability assessments to identify significant physical climate risks and implementing adaptation measures where a risk has been identified. To this end, we worked with an external service provider to conduct data-driven climate projections over the next 30 years based on the four IPCC scenarios RCP2.6, RCP4.5, RCP6.0, and RCP8.5. The results were assessed by SMA experts. For our production sites in Germany and Poland, the results show that, relative to the overall risk, there are no significant risks for the economic activity “manufacture of renewable energy technologies.” This also means that no climate change adaptation solutions are required.

The economic activity “installation, maintenance and repair of renewable energy technologies” takes place directly on-site at customer premises worldwide. Given the countless locations, it is not possible to conduct a climate risk and vulnerability assessment in detail for specific locations. We therefore adopted a risk-based approach to review the activity. Focusing on the key regions where systems are installed and either commissioned, maintained or repaired by SMA, this approach aims to determine relevant climate risks and assess the resilience to climate change of the SMA products and activities provided. The risk-based approach covers the largest regions in which a combined total of over 50% of SMA inverter output was installed over the past 20 years. These include Germany, Australia and various regions within the U.S. Other countries and regions that individually account for no more than 3% of the total SMA inverter output installed were not included under the risk-based approach. In five of the regions assessed, several physical risks (e.g., flooding, heavy precipitation, heat and water stress) were identified that could have a negative impact on SMA products and economic activities. Due to the design of SMA inverters for operation under extreme environmental conditions, the transparent provision of information on fault-free operation and the possibility of temporary postponements of service activities, the SMA Group is not vulnerable to the identified risks. On this basis, no further adaptation solutions prescribed by the Climate Delegated Act are required. Further information on climate-related risk and vulnerability assessments can be found in the Combined Management Report in the [“Risks and Opportunities Report”](#) section.

Sustainable use and protection of water and marine resources

The DNSH criteria for the environmental objective “sustainable use and protection of water and marine resources” refer to legal and regulatory requirements, compliance with which is ensured by the SMA group. At the production sites in Germany and Poland, fulfillment of the requirements is ensured through implementation of a legal register. Processes undergo regular internal and external audits within the scope of our DIN ISO 14001 certified environmental management system at the headquarters in Niestetal/Kassel, Germany. More information on this can be found in the [“Legal compliance”](#) section.

Transition to a circular economy

The DNSH criteria for the environmental objective “transition to a circular economy” prescribe the implementation of measures that the SMA group had already been working on before the Taxonomy Regulation came into force. In light of the major potential repercussions, we believe we have a particular duty as a manufacturer of electronic products to avoid significant harm to this environmental objective. Our materiality analysis confirms this. The measures we have addressed contribute to several DNSH criteria for the environmental objective “transition to a circular economy.” To provide a better overview of where we report on the individual criteria, we have included the following table:

DNSH criterion within “transition to a circular economy”	Section in the combined non-financial statement
Use of secondary raw materials	Responsible use of materials/ secondary raw materials
Reuse of components	Sustainable product life cycle/ reparability and reuse
Design for long life	Sustainable product life cycle/product lifetime
Design for recyclability	Sustainable product life cycle/ reparability and reuse
Design for easy disassembly	Sustainable product development
Design for adaptability	Sustainable product development
Waste management	Waste & recycling
Information on substances of concern and traceability	Responsible use of materials/ substances of concern

Pollution prevention and control

The general DNSH criteria for pollution prevention and control regarding the use and presence of chemicals mentioned in the Delegated Act on Climate state that an activity does not cause a significant adverse effect on the environment if it does not lead to the production, placing on the market or use of substances regulated in different European legal acts. This includes certain hazardous substances in electrical and electronic equipment under the RoHS Directive, certain substances that deplete the ozone layer, mercury and mercury compounds, certain persistent organic pollutants (POP), and substances covered by the Regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). For substances of very high concern under REACH (SVHC substances) that are not subject to authorization restrictions, exemptions are provided under the DNSH criteria.

The manufacture, placing on the market or use of these substances is permitted in cases where their use has been proven to be essential for society. The SMA group complies with all the relevant legal provisions regarding these substances. Furthermore, in the course of the economic activity “manufacture of renewable energy technologies,” we do not utilize any substances that deplete the ozone layer, nor do we use either mercury or mercury compounds or persistent organic pollutants under the Stockholm Convention.

To manufacture our string inverters, we use “restricted substances” that are legally classified as such under the RoHS Directive. According to the Climate Delegated Act, however, this is not enough to be classified as taxonomy-aligned. Taxonomy alignment can only be demonstrated if our activity does not lead to the manufacture, placing on the market or use of the hazardous substances listed in the Act. As the Climate Delegated Act does not provide for any exceptions at all on this, we are unable to demonstrate taxonomy alignment for string inverters at this time. Central inverters, on the other hand, are excluded from the scope of the RoHS Directive as these involve fixed large-scale PV power plants. In order to achieve taxonomy alignment here, f) and g) of Appendix C of the Climate Delegated Act state that evidence must be provided demonstrating that the use of the SVHCs under REACH has been proven to be essential for society.

However, as is usually the case with new legal regulations, there are still a lot of gray areas within the Taxonomy Regulation and the DNSH criteria that need to be met. On December 19, 2022, the European Commission thus published answers to frequently asked questions in the form of a Draft Commission Notice to provide some clarification. Among other things, the document indicates that the European Commission is going to further define the criteria for essential use for society within the framework of the “Chemicals Strategy for Sustainability,” which was not yet published at the time this combined non-financial statement was being prepared and audited. We are therefore currently using the Montreal Protocol, which is referred to in the Draft Commission Notice, as a guideline. Following an intensive internal audit, we deem the criterion for essential use for society to have been met, particularly in view of the fact that our products make an essential contribution to energy security and to a sustainable, decentralized energy supply. We therefore consider the criteria in Appendix C of the Climate Delegated Act to have been met for our central inverters. Further details about our pollution prevention and control activities are outlined in the “[Substances of concern](#)” section.

Protection and restoration of biodiversity and ecosystems

The DNSH criteria for the environmental objective “protection and restoration of biodiversity and ecosystems” make provisions for conducting environmental impact assessments (EIAs). According to European regulation, an EIA is mandatory if certain activities are carried out that could have a potentially harmful impact on biodiversity and ecosystems. The SMA group’s activities are not covered by the scope of this. We also ensure that we fulfill all legal requirements at all times. Consequently, the SMA group’s activities do no significant harm to this environmental objective. Further information can be found in the “[Legal compliance](#)” section.

Minimum safeguards

Initial verification of group-wide compliance with the minimum safeguards was provided by way of a status analysis based on the six due diligence steps outlined in the OECD Guidelines for Multinational Enterprises. This was followed by an in-depth assessment of criteria fulfillment starting in October 2022 coinciding with the publication of the Platform on Sustainable Finance’s Final Report on Minimum Safeguards. This document consolidates the requirements set out in international standards and specifies the topics to be covered. We have included disclosures on the individual topics, including recognition of and compliance with international principles and standards, along with associated measures, targets and processes in the relevant sections of the combined non-financial statement. The topic of human rights is covered in the “Sustainable supply chains” section and in the “Safeguarding employee rights and maintaining high labor standards” section. Our review found that some of the legal regulations in the United Arab Emirates contravene international standards and minimum safeguards. These relate in particular to principles of non-discrimination and the right to freedom of association. As the SMA group has no control over these legal requirements, the sales of the relevant group company were deemed to be taxonomy-aligned and were included under the activity “installation, maintenance and repair of renewable energy technologies.” The topic of corruption is addressed in the relevant section within the “integrity & compliance” aspect. The topics of fair competition and taxation are also covered here. We cover the topic of customer safety in the product stewardship area of action.

Data collection and calculation process

To determine the disclosures on taxonomy eligibility and taxonomy alignment, we first analyzed consolidated sales and differentiated them by product group. Based on this differentiation, the sales could then be directly assigned to the identified taxonomy-eligible economic activities. Sales generated by PV and battery inverters, electric vehicle charging solutions and accessories were assigned to the economic activity “manufacture of renewable energy technologies”; sales generated by extended warranties, operation and maintenance services, and replacement devices and other services were assigned to the economic activity “installation, maintenance and repair of renewable energy technologies.”

We looked at the capital expenditure (CapEx) of all group companies on a macro level. We deducted the capital expenditure in the activities that had previously been identified as non-taxonomy-eligible. The expenditure was then assigned to the company areas and finally split by company area between the economic activities.

To calculate taxonomy-eligible operating expenditure (OpEx), we identified all the relevant consolidated items and assigned them to the company areas. We then also deducted the expenditure in the activities that had previously been identified as non-taxonomy-eligible. The expenditure was finally split by company area and assigned to the economic activities.

The EU Taxonomy KPIs include all fully consolidated companies of the SMA group. The company did not elect to include joint ventures.

Composition of the sales numerator

To calculate environmentally sustainable sales, net sales that make a contribution to climate change mitigation were divided by the net sales of the SMA group. Detailed information on the SMA group's sales can be found in the Combined Management Report in the “Results of operations” section.

in €'000	2022/12/31
Taxonomy-aligned sales in absolute terms	450,999

Composition of the capital expenditure numerator

Environmentally sustainable capital expenditure (CapEx) relates to assets that are connected with taxonomy-aligned economic activities. This includes additions under the following IFRS standards: additions to property, plant and equipment (IAS 16), additions to intangible assets (IAS 38), additions to rights of use (IFRS 16) and additions to investment property (IAS 40). Further notes on calculating the denominator can be found in the consolidated financial statements in the “Notes to the balance sheet SMA group” section.

in €'000	2022/12/31
Taxonomy-aligned additions property, plant and equipment	7,445
Taxonomy-aligned additions to intangible assets	11,411
Taxonomy-aligned additions to rights of use	1,830
Taxonomy-aligned additions to investment property	0
Taxonomy-aligned additions from business combinations	0
Total taxonomy-aligned	20,686

Composition of the operating expenditure numerator

Operating expenditure (OpEx) relates to direct, non-capitalized expenditure for research and development, building maintenance, servicing and repair costs, and current leases. The figure reflects the share of OpEx that relates to assets or processes that are connected with taxonomy-aligned economic activities.

in €'000	2022/12/31
Taxonomy-aligned research and development expenses	10,006
Taxonomy-aligned short term leasing	4,097
Taxonomy-aligned service, maintenance and repair	1,167
Total taxonomy-aligned	15,270

SMA disclosures on EU taxonomy

SMA group 2022	in €'000	in %
Sales	1,065,946	100.0
thereof taxonomy-aligned in absolute terms	450,999	42.3
thereof from activity 1 ¹	317,587	29.8
thereof from activity 2 ¹	133,412	12.5
Operating costs	43,457	100.0
thereof taxonomy-aligned in absolute terms	15,270	35.1
thereof from activity 1 ¹	12,891	29.7
thereof from activity 2 ¹	2,379	5.5
Investment expenditure	65,758	100.0
thereof taxonomy-aligned in absolute terms	20,686	31.5
thereof from activity 1 ¹	17,796	27.1
thereof from activity 2 ¹	2,890	4.4

¹ Activity 1: Manufacture of renewable energy technologies;

² Activity 2: Installation, maintenance and repair of renewable energy technologies

The tables of disclosures in accordance with Appendix II of the delegated act can be found at the end of the combined non-financial statement.

In the 2022 fiscal year, the SMA group generated sales of €1,065.9 million. Of these sales, €902.5 million (84.7%) are taxonomy-eligible. Sales that are non-taxonomy-eligible total €163.4 million (15.3%). Last year, the SMA group reported that 100% of its sales were taxonomy-eligible. The variance of 15.3% is mainly due to the sale of merchandise, which is not covered by the scope of the Taxonomy Regulation. The same applies for non-essential activities, which cumulatively account for a share of less than 1% of consolidated sales.

In the 2022 fiscal year, €451.0 million or 42.3% of sales can be classified as environmentally sustainable (taxonomy-aligned) as defined in the EU taxonomy. Of these, sales of €317.6 million (29.8%) are attributable to activity 1, "manufacture of renewable energy technologies." This is the share of sales that was generated by central inverters. More information on this can be found in the "Pollution prevention and control" section. €133.4 million (12.5%) of taxonomy-aligned sales are attributable to activity 2, "installation, maintenance and repair of renewable energy technologies." In addition, sales of €451.5 million (42.4%) were generated by the sale of renewable energy technologies. These sales are taxonomy-eligible but they were not proven to be taxonomy-aligned.

The taxonomy-related capital expenditure of the SMA group is 31.5% environmentally sustainable; this equates to capital expenditure of €20.7 million. Of this, 27.1% (€17.8 million) is attributable to the manufacture of renewable energy technologies and 4.4% (€2.9 million) to the installation, maintenance and repair of renewable energy technologies. Taxonomy-eligible but non-taxonomy-aligned activities account for €41.8 million (63.6%). The share of capital expenditure that is non-taxonomy-eligible is €3.2 million (4.9%).

In 2022, the SMA group's operating expenditure that falls under the scope of the EU taxonomy amounts to €43.5 million. Of this, 35.1% (€15.3 million) can be classified as taxonomy-aligned. A share of €12.9 million (29.7%) is attributable to the economic activity "manufacture of renewable energy technologies" and €2.4 million (5.5%) to the economic activity "installation, maintenance and repair of renewable energy technologies." €26.7 million (61.5%) of the taxonomy-related operating expenditure is taxonomy-eligible but does not meet all the criteria to be classified as taxonomy-aligned. €1.5 million (3.4%) of the operating expenditure is non-taxonomy-eligible.

Integrity & compliance

The aspect of integrity & compliance – that means, adhering to important principles and values as well as legal requirements and internal guidelines – is a crucial part of the way that the SMA group does business. Our compliance management focuses on a value-based approach and promoting a culture of compliance. This is based on the conviction that a compliance culture established throughout the group offers the best protection against legal violations and reputational risks. A high level of acceptance of the rules among employees and an understanding of the goals and values behind these rules are thus the basis for effective compliance management.

All employees of the SMA group are obligated in the context of their work for the company to act ethically in accordance with the directives, laws and regulations of their country. Almost all corporate compliance guidelines are compiled in the SMA Compliance Manual and are available in several languages. At regular intervals, the Compliance function reports to the Managing Board and Supervisory Board with information on the latest developments, suspicious cases, measures and processes within compliance management. The SMA Compliance Board, in which the entire Managing Board is represented alongside other management functions, usually meets once a quarter to evaluate the effectiveness of compliance management, including the management approach for preventing corruption, and to initiate adjustments where necessary.

In compliance training courses, we promote awareness of the importance of compliance among the employees and pass on the required knowledge. This is done both with web-based training formats for basic training and with online and on-site events for examining issues in depth. The frequency and scope of training depends on the participants' risk situation in their specific roles. After completing their initial compliance training, new employees actively commit to the principles and rules communicated. This also includes the "SMA Employee Code of Conduct".

In the case of suspected compliance violations, employees of the SMA group and all external stakeholders have access to the "speak-up line." This whistleblower system is operated by an external provider and can be used in the respective native language of the reporting person. At the whistleblowers' request, their identity is kept anonymous. Whistleblower reports are treated as strictly confidential. The SMA group assures all employees freedom from sanctions for reports made in good faith. Details of this, together with a complete description of the process for reporting misconduct, can be found on our [website](#). In addition, the SMA compliance helpline is available for questions relating to compliance and anti-corruption. Concerns or information regarding possible misconduct can also be passed on here.

CORRUPTION AND BRIBERY

The SMA Group is not active in any particularly corruption-intensive industry. Nevertheless, business activities in countries with a high level of corruption and collaboration with external business intermediaries mean that corruption risks exist in principle and must be countered with preventive measures. The SMA group does not tolerate corruption internally or at its business partners and is actively committed to Transparency International's Business Principles for Countering Bribery. To put this aspiration into practice, we have set up an extensive corruption prevention program throughout the group as a subarea of compliance management.

Corruption describes the abuse of entrusted power for private gain. Corrupt actions may be committed both by employees of the SMA group and by SMA business partners. Corruption has serious negative consequences for the society and poses a risk to fair competition. Corrupt actions also entail legal risks, which may significantly damage the SMA group's reputation and unduly influence business agreements at the expense of the SMA group or its business partners. Regular compliance risk analyses focusing on corruption risks provide the foundation for the risk-based conception and further development of all anti-corruption activities in the SMA group.

In the "SMA Employee Code of Conduct", it is clarified that employees must never abuse their professional position to gain personal benefits and must never offer anyone an undue personal benefit. Additional anti-corruption guidelines include clear rules of conduct for all employees. The aim is to avoid even the appearance of questionable conduct. For this reason, higher-value gifts, invitations and other personal favors as well as favors granted to public officials must be approved by the Compliance function. Payments to expedite official processes unlawfully are explicitly forbidden within the SMA group.

Business partners that may influence third parties while performing their service must go through the business partner due diligence process. The risk-based approach ensures a careful selection of business partners who operate for the SMA group. Business partners are commissioned only if they share the SMA group's standards of ethically and legally impeccable conduct. The business partners additionally assure us of this by signing the "SMA Business Partner Code of Conduct". This sets out the legal and ethical standards that business partners such as suppliers and service providers must fully comply with when conducting business with the SMA group and making decisions that affect the SMA group. With this approach, we ensure that the due diligence requirements of the EU taxonomy within the minimum safeguards are enacted by our business partners.

In the reporting year, the Compliance function reviewed the corruption risk for all existing companies of the SMA group that currently have active business operations by way of a compliance risk analysis. No high corruption risks were identified. In 2022, 1,610 employees, trainees and learners corresponding to 44.3% of the SMA group's workforce were given anti-corruption training (2021: 124 employees, trainees and learners corresponding to 3.5% of the workforce; the previous year's figures have been adjusted due to a change in the calculation method). As in the previous year, no confirmed cases of corruption were recorded in the reporting year.

FAIR COMPETITION

Measures taken to ensure compliance with the provisions of antitrust laws are a focal point of compliance management work. Antitrust risks are an integral part of regular compliance risk analyses. The "SMA Employee Code of Conduct" clarifies that the SMA group exclusively conducts its business in compliance with competition law. We also pass this requirement on through the "SMA Business Partner Code of Conduct" to our business partners (e.g., suppliers and service providers). The Group Compliance Guidelines incorporated in the SMA Compliance Manual also contain clear rules of conduct on dealing with direct competitors and internal approval requirements for agreements with customers that are prone to risk from an antitrust law perspective.

A separately published Compliance Checklist for cooperations with competitors provides additional guidance. In the context of Compliance Network Meetings, the employees of the Compliance function have regular discussions with representatives of functions that are particularly prone to risk (e.g., Sales, the Business Units and Procurement) about transactions and risks relating to antitrust law. Business contacts that are extremely fraught with antitrust risk are managed in close consultation with the Legal department. The Compliance function also provides training with a focus on antitrust law for these areas.

TAXATION

The SMA group abides by all the tax laws and regulations of the countries in which it operates. We take into account not just the wording of these laws, but also the intentions of the legislator. As an honest and fair taxpayer, we are opposed to tax fraud and tax evasion with our policy of rigorous tax planning and tax organization. The Chief Financial Officer has supreme authority when it comes to the overall control of all tax matters relating to the SMA group. The Global Tax function is responsible for operational implementation. The Global Tax function regularly identifies and assesses financial, regulatory and reputational risks associated with taxation. If these risks also meet the criteria of the SMA group's Risk and Opportunity Management System, they are also recorded in our Enterprise Risk Management. In addition, the Internal Audit department examines selected tax-related matters on a random basis on the basis of the risk-oriented audit plan. If measures are identified as part of risk assessment or auditing, the implementation of these measures is documented in the relevant systems. Keeping a record of the Objectives and Key Results (OKRs) as part of the "Finance Strategy" initiative also helps the company develop business process measures that eliminate tax risks and contribute to the work of the SMA group's Tax Compliance Management System. Where required, we work with local tax advisors that have expert knowledge of national legislation. Since 2022, the topic of "tax compliance" has also been included in the "SMA Employee Code of Conduct." The company did not have any tax fraud convictions in the reporting year.

Sustainable supply chains

→ Our objective: 55% overall assessment for suppliers' sustainability performance

Our materiality analysis as updated in 2021 clearly shows that the "sustainable supply chains" aspect is becoming increasingly important. Specifically, this aspect encompasses protection of human rights, fair labor practices and environmental protection within supply chains. Furthermore, the measures that are implemented in the "sustainable supply chains" aspect also form an integral part of compliance with human rights issues within the minimum safeguards set out by the EU taxonomy.

The SMA group sells its systems and solutions worldwide. The supply chains required for the SMA group's business activities result in a global supplier base. These supply chains include 459 direct suppliers from 24 countries that supply direct material for production. In total, the SMA group purchased goods worth more than €500 million from these suppliers in the regions of Europe, North and South America and the Asia-Pacific region. The ongoing coronavirus pandemic and Russia's war of aggression on Ukraine posed particular challenges in our global supply chains in the reporting year. For example, government-imposed coronavirus measures, such as the closure of regional economic areas or ports in China, led to temporary supply chain disruptions and thus to planning uncertainty for the company.

Our procurement planning is based on forecasts and therefore on planned sales figures. Orders are placed in cooperation with our suppliers, taking account of their production capacities. If the planned sales figures change, planning adjustments are made in cooperation with our suppliers to enhance planning reliability. For selected purchased components, we also analyze the cost structure using a cost breakdown tool so that we are able to negotiate appropriate and fair prices with the relevant suppliers.

SUPPLIER MANAGEMENT

Our supplier management aims to establish long-term relationships with all suppliers with whom we are in direct contact. With this in mind, we aim to conclude contracts of unlimited duration with a supplier base that is as consolidated as possible. In addition to leveraging economies of scale in procurement, this gives us better oversight over our suppliers in terms of relevant risks, including sustainability risks. Our annual Supplier Day, to which our direct A and B suppliers¹ are invited, provides an opportunity

¹ Our A suppliers account for 80% and our B suppliers for 15% of our total purchasing volume.

to disclose any current issues and challenges. Sustainability issues are a permanent item on the agenda to make suppliers aware of the importance the SMA group attaches to sustainability and to raise awareness of the impact that suppliers' sustainability performance has on our own sustainability performance. The SMA Supplier Day 2022 was attended by 75 suppliers, equating to 5.4% of all suppliers.

RISK MANAGEMENT IN THE SUPPLY CHAIN

Regulatory requirements on the protection of human rights in the supply chain are increasing worldwide. These aim to hold companies more accountable for the effects of their actions in the supply chain. In Germany, these requirements have been established particularly in the German Act on Corporate Due Diligence in Supply Chains (Lieferkettensorgfaltspflichtengesetz, LkSG), which will apply to the SMA group from 2024 onward. With our current activities in the field of supply chains and supplier assessments regarding sustainability performance, we already meet some of the established requirements. We are also implementing new requirements on supply chain risk management under the LkSG in our processes and at our suppliers with the "Sustainable Supply Chains Guideline" that was finalized and enforced in the reporting year. In 2022, we outlined the relevant processes and measures in our first "Modern Slavery Statement." It is available on the [corporate website](#).

Business Partner Code of Conduct

Since 2009, the SMA group has recognized the Code of Conduct of the Bundesverband Materialwirtschaft, Einkauf und Logistik e. V. (German Association for Supply Chain Management, Procurement and Logistics; BME e. V.) and used this as the basis for its own guidelines for suppliers (SMA Supplier Code). In 2020, this Code was revised with the participation of relevant stakeholders and newly implemented under the name "SMA Business Partner Code of Conduct." Our goal here is to establish general principles with regard to fairness, integrity and corporate responsibility in business relationships and the supply chains. The "SMA Business Partner Code of Conduct" sets out our standards and the expectations we have of suppliers and other business partners with respect to the recognition of international standards and principles, health protection, occupational safety and product quality, respect for human rights and fair labor practices, fair competition, protection of confidentiality, information and property and environmental protection and responsible energy use. The Code of Conduct is publicly available on the [corporate website](#). It is binding for all suppliers as part of the general terms and conditions. Our suppliers also undertake to pass on this requirement in their supply chains.

Risks in the supply chain

To review risks in the supply chain on a continuous basis, we use supplier risk software in purchasing to monitor all direct suppliers that supply direct material for our production. Using the risk tool, we monitor not only quality and reliability risks, but also risks in the area of sustainability, such as corruption risks, and any detected incidents in the areas of human rights and labor practices and environment. Furthermore, the whistleblower system described in the "integrity & compliance" section is also available to all external stakeholders to report any breaches of duty in the supply chain. There were no incidents involving breaches of duty in the areas of human rights and labor practices or environment reported in the SMA group in 2022. We are going to carry out a detailed risk analysis of our suppliers in 2023 and make this part of our human rights policy statement.

Since 2020, there have also been increased concerns due to indications of human rights violations against the ethnic group of Uighurs in the Xinjiang region in China. The SMA group shares these concerns and has consequently conducted a supplier analysis. As a result, we can confirm that there are no business relationships with suppliers based in this region. In addition, we have implemented a process element in our global supplier selection to ensure that no products from the region are purchased in the future either. Following the start of Russia's war of aggression on Ukraine, we also extended this process element to suppliers from Russia in the reporting year. Accordingly, we also confirm that we do not procure any goods from Russia.

Sustainability performance of our suppliers

In 2017, we also started to assess the sustainability performance of our direct A and B suppliers¹ that supply direct material for production. We are initially focusing on the suppliers that account for the largest shares in terms of the value of goods. The assessment is performed using the sustainability software of an external partner, which calculates a sustainability rating, identifies strengths and weaknesses, and derives recommended actions. In addition to this assessment function, the software contains training material for our suppliers, which improves their knowledge and awareness of various sustainability issues. The sustainability performance covers the topics of the environment, labor and human rights, ethics and sustainable procurement. Our target is to have covered 100% of A and B suppliers in our assessment and to achieve an average sustainability performance of 55% in the overall assessment across all direct suppliers that supply direct material for production by 2025. The Supervisory Board has acknowledged the strategic importance of supplier sustainability assessments for the SMA group by including the target "100% assessment of the sustainability performance of A and B suppliers

¹ Our A suppliers account for 80% and our B suppliers for 15% of our total purchasing volume.

by 2025” in the targets set for the long-term bonus for the years 2022 to 2025 within the Managing Board remuneration system that applies for all employment contracts concluded from 2021 onwards.

In 2022, we assessed a further 6.25% of our A and B suppliers on the basis of sustainability criteria. This means that our sustainability performance assessment covers 50.0% of all A and B suppliers existing at the end of the fiscal year (2021: 46.4% of all A and B suppliers existing at the end of 2021). The suppliers that we had assessed at the end of 2022 represent a share of 64% of our direct material purchasing volumes. The suppliers who have already been assessed show a largely positive picture and a steady improvement in their sustainability performance. In the reporting year, the sustainability performance of the suppliers assessed thus rose to 56.5% (2021: 54.1%).

If relevant risks or suggestions for improvement are identified, we get in touch with the suppliers to address these issues, define measures where necessary and monitor the implementation of these measures. In 2022, we identified 81 areas of potential improvement for 15 suppliers in the area of human rights and initiated appropriate measures.

Since 2022, the sustainability performance of our suppliers has been included as part of our supplier selection process. Other criteria for supplier selection include cost, quality aspects, technical potential and supply chain management performance. Furthermore, our commodity managers have regular interactions with suppliers on sustainability issues.

Area of action: environment & energy



The technologies developed and produced by the SMA group facilitate a climate-friendly energy supply all around the world. Furthermore, by handling resources responsibly and using renewable energies across the entire value chain, we aim to minimize the environmental impact of our business activities and to help establish the conditions for a livable future for all living beings.

We endeavor to continuously reduce the use of resources along the entire value chain or to substitute them with more environmentally friendly versions, thereby increasing the use of renewable energies, environmentally friendly materials and sustainable forms of mobility. The aspect of climate protection and the subject area of circular economy are at the heart of the environment & energy area of action.

Under circular economy, we include all topics that contribute to closing material cycles and reducing material flows. Within the environment & energy area of action, these topics are presented in the “responsible use of materials” and “waste & recycling” aspects. Other circular economy topics are outlined in the product stewardship area of action. The topic of the circular economy is complex and is influenced by numerous areas of the company. So it is all the more important for us to incorporate the principles of the circular economy in our thinking and our business processes to ensure that impacts on the circular economy are always taken into account in corporate decisions.

Key figures on environment & energy that go beyond the disclosures in this section can be found in the overview of sustainability key figures at the end of the combined non-financial statement.

MANAGEMENT SYSTEMS

The SMA group’s production sites have environmental management systems in line with DIN EN ISO 14001. In addition, the environmental management system at our headquarters in Germany and thus the production site in Niestetal/Kassel is certified in accordance with DIN EN ISO 14001. We were successful in achieving **recertification** in the reporting year. The energy management system at our headquarters in Germany is certified in accordance with DIN EN ISO 50001. Successful **recertification** for this system was also achieved in 2022. Our management systems supported us with our approach of minimizing the environmental impact at every stage of the value chain and acting in accordance with the current environmental and energy legislations. The processes relating to the environmental management system are defined in the SMA Management Handbook, which can be accessed by all SMA employees.

LEGAL COMPLIANCE

At the headquarters in Germany, a legal provisions register and an approval register form the basis for ensuring that all applying laws and provisions and all binding obligations are complied with. The legal provisions register working group assesses the relevance of the provisions and defines responsibilities for complying with the legislation. The entrepreneurial and operator responsibilities for facilities and systems are transferred in writing to the managers responsible. Six-monthly reviews are conducted in cooperation with external consultants to ensure the legal provisions register remains up to date. Regular internal audits are conducted to ensure compliance with all legislation.

Approval procedures are relevant for the SMA group in the context of planning permissions for new buildings or building extensions. Buildings housing the company's operating activities are located at the headquarters in Germany and the second production site in Poland in industrial parks and designated business parks. The new building project that we are due to commence in 2023 will also be undertaken in a designated business park. The Sandershäuser Berg production site in Germany is located in a water protection area, which meant that the water protection authorities were intimately involved in all building projects. None of our locations is required to conduct a mandatory environmental impact assessment (EIA) on account of the activities undertaken there. We consider the negative impact of the SMA group's activities on the surroundings to be low.

All binding obligations issued as part of planning permits for buildings and facilities at the main location in Germany are held in the approval register. In most cases, external service providers are appointed to implement these requirements during the construction phase and during operation. The Corporate Real Estate Management function is responsible for awarding these contracts and for maintaining and regularly updating the approval register. No violations of environmental laws and regulations were identified in the reporting period.

Sustainable energy use

The SMA energy concept is based on three levels with which we commit ourselves to improving energy-related performance: Avoiding energy consumption, using energy more efficiently and increasing the share of renewable energies. The SMA group has already undertaken a number of flagship projects such as the SMA Solar Academy building in Niestetal, Germany, which functions independently from the utility grid, and two highly energy-efficient production buildings operated with renewable electricity. These projects are a testament to the high priority the SMA group places on its sustainable energy management. The production buildings won the international Energy Efficiency Award and the Timber Construction Award for Hesse.

In 2022, the SMA group's total energy consumption was roughly on a par with the previous year at 34.59 GWh (2021: 34.37 GWh). Of this total, 20.93 GWh was obtained from renewable sources (2021: 21.59 GWh). The main reason for the slight decrease in the share of renewable energies is the decision to disconnect the biogas-powered combined heat and power plant in Solar Factory 1 at the headquarters in Niestetal/Kassel, Germany. This energy source has been replaced by district heating. In 2022, the specific energy consumption per kW of inverter output produced amounted to 3.14 kWh/kW at the headquarters (2021: 2.64 kWh/kW) and to 4.13 kWh/kW globally (2021: 3.35 kWh/kW). The increase stems largely from the fact that, first, production capacity was underutilized because of the shortage of components impacting large parts of the year and, second, inverters with a lower output accounted for a comparatively high share of total production because of delays to PV power plant projects. A detailed list of the energy carriers used in the SMA group can be found in the key figures for the environment & energy area of action at the end of the combined non-financial statement.

RENEWABLE ENERGIES

→ Our objective: 100% electricity from renewable energies

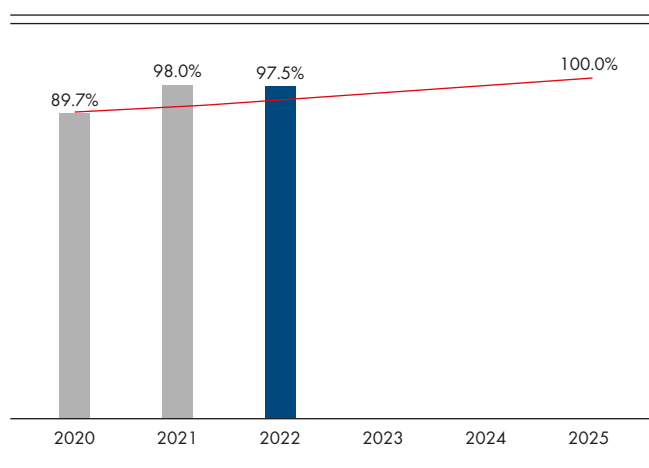
With around 3,500 employees in 20 countries, the SMA group develops, produces and sells technologies that are fundamental to the transition to a sustainable energy supply. Our systems and solutions facilitate decentralized and efficient energy generation and use based on renewable energies. As such, the SMA group's sustainable business activities directly contribute to SDG 7 "Affordable and clean energy." The transformation of global energy supply structures to generation based on decentralized renewable energies is an important factor in the fight against the global climate crisis. This fact is also being recognized in the international political arena, resulting in initiatives like the European Green Deal and U.S. Inflation Reduction Act. More information on this can be found in the "Future general economic conditions in the photovoltaics sector" section of the Forecast Report.

Renewable energies also play an important role in our own energy supply. Our power supply is based on the following hierarchy: top priority is given to electricity from our own photovoltaic plants. The next level is formed by direct power purchase agreements (PPAs) with operators of renewable energy plants in the surrounding area. In third place are supply contracts with utilities that purchase renewable electricity directly from the generators. At the bottom of the hierarchy are supply contracts under which the utility buys renewable power on the exchange and additionally localizes it via certificates.

Since 2020, our headquarters in Germany has been supplied entirely with decentralized renewable power from the immediate surroundings. In 2022, our in-house PV systems produced a quantity of electricity corresponding to 42% (2021: 36%) of our total electricity consumption at the headquarters in Germany. We used around 32% of the electricity generated ourselves. The rest was fed into the utility grid. We covered the remaining electricity demand at the headquarters through a power supply agreement with the local utility company and through power purchased from a local wind farm using certificates. In the reporting year, we began the process of further enhancing the sustainability of the electricity supply at the headquarters. In the future, a third of our supply will continue to be covered by the aforementioned certificates. Another third will come from a local PV power plant through a PPA that was very near completion at the end of the reporting year. Thanks to its environmentally friendly design, the plant will also play a role in protecting local biodiversity in partnership with the lower nature conservation authority. Our in-house PV systems will continue to round off the electricity supply at the headquarters. To safeguard this aspect of supply, we have started a repowering project involving our largest in-house ground-based PV system. We are aiming to double its nominal system power.

Our production site in Poland has also been obtaining 100% of its electricity from renewable energies since 2021. All other SMA locations worldwide are also to be gradually changed over to renewable electricity. The target that we have set ourselves as part of the SMA Strategy 2025 is to use 100% electricity from renewable energy sources by 2025. The changeover at some of our leased office spaces is proving difficult, however, because either it is currently impossible to obtain green electricity locally or the building owners have no interest in switching the supply. The SMA group covered 97.5% of its electricity demand worldwide with renewable energies in the reporting year (2021: 98.0%).

Achievement of objective: 100% electricity from renewable energies



ENERGY EFFICIENCY

Alongside our efforts to continuously increase the use of renewable energies, energy efficiency and energy saving have long represented another pillar of the company's sustainable energy utilization strategy. In recent years, we have been continuously developing and implementing measures to support this. During the reporting year, legislators have again been paying more attention to the issue of efficient energy utilization in companies in a bid to counter the energy shortage in Europe as a result of Russia's war of aggression on Ukraine. The German federal government, for example, has supplemented the Energy Security Act – among other additions – with two new ordinances on securing the energy supply through rapid impact measures and medium-term impact measures. In addition to rapid impact measures such as lowering the room temperature in workplaces where possible and switching off the lights at night, the ordinances also require companies to identify, assess the efficiency of and audit medium-term impact measures. It is imperative that these measures are implemented within the space of twelve months if the payback period is not to exceed three years. To satisfy the requirements of the ordinance and any future requirements that may be imposed on companies, we have established at the headquarters in Niestetal/Kassel, Germany, an "Energy Crisis and Energy Management Focus Team" comprising representatives from all the relevant departments. A modern energy management software makes it possible for us to monitor all types of consumption on an ongoing basis.

Project for individual climate control

As the cold season set in, we lowered the room temperature in selected offices from 21 to 19 degrees Celsius on a trial basis. Feedback from the employees working in these offices will then be used as a basis for making a decision concerning the across-the-board reduction of room temperatures. In another project, we have started a test in our logistics center for the use of individually temperature-controllable clothing with heating function (smart textiles) with simultaneous successive reduction of the room temperature. Since this form of individual climate control means that the ambient air does not need to be heated, it could generate potential savings of 6% for every degree the temperature is lowered. The results from the trial, which are expected in February 2023, will be used as a basis for assessing whether to roll out the project to other areas. We have made the project public. It has received extensive media coverage and significant interest from other companies.

Energy optimization in the production buildings at the headquarters

In the reporting year, we have also made further progress on energy optimization in our production buildings. In Solar Factory 3, we significantly reduced the gas consumption for our warm water supply through an improved management and control

function. In Solar Factory 1, we switched the nitrogen supply for our electronics production facilities over to CO₂ neutral nitrogen and continued to make headway on switching the hall lighting over to LEDs. In addition, we are consulting with the landlord of our logistics center about also switching over to LED lighting there. Additionally, to further reduce gas consumption, we are planning to install heat pumps in the production and development hall at the headquarters in the coming year. To further enhance awareness on saving energy among all SMA employees, we are also planning to expand our training concept for environmental and energy management.

Improving the energy efficiency of IT

We used a resource-saving solution when we built our data center at the headquarters in Germany in 2013. The data center, which has a power usage effectiveness (PUE) value of 1.25, won us the German Data Center Award for energy and resource efficiency. We are gradually shifting the services provided by the data center over to the cloud with our “cloud first” strategy. Not only does this generate cost savings for the SMA group; it also significantly enhances the energy efficiency of our IT. The PUE of the data center since we started shifting services is now 1.4. Once the move over to the cloud is complete, we are planning to close the data center in 2023.

Climate protection

The Managing Board of SMA Solar Technology AG considers the global climate crisis to be the greatest challenge facing mankind. The Managing Board is convinced that the climate protection goals set out in the closing statement of the 2016 UN Climate Change Conference in Paris must be achieved to preserve a livable planet for future generations. But this will require us to step up our global climate protection activities significantly. States, public and private institutions and companies must all work together to limit global warming to 1.5 degrees Celsius. The SMA Managing Board believes that the outcome of the UN Climate Change Conference (COP27) that was held during the reporting year did not go far enough for us to still achieve this target.

The Managing Board has geared the SMA group toward contributing to the target of limiting global warming to 1.5 degrees Celsius, both with its systems and solutions and in its operating activities. In 2022, the SMA group also joined the European Climate Pact initiated by the European Commission as part of its European Green Deal. It provides a platform for people and organizations to share information, learn together and build networks in the fight against the climate crisis.

Participating in the CDP has enabled us to increase transparency surrounding SMA's climate footprint for our stakeholders since 2021. The CDP also helps us recognize opportunities in line with best practices and systematically integrate climate protection into our business processes. Since improving our CDP score from B- to B in the reporting year, we are now meeting the European CDP average and are above the global average for the activity group “Renewable energy equipment,” which is B-.

CLIMATE FOOTPRINT

The SMA group's direct greenhouse gas emissions (Scope 1) were virtually unchanged in 2022 at 2,444 tons of CO₂e (2021: 2,422 tons of CO₂e). Due to changes in the energy mix, indirect greenhouse gas emissions (Scope 2) slightly increased to 368 tons of CO₂e (2021: 353 tons of CO₂e). The intensity of greenhouse gas emissions amounted to 2.08 tons CO₂e/€ million of sales (2021: 2.03 tons CO₂e/€ million of sales). The target that we originally set ourselves for 2025 of reducing specific CO₂e emissions in kg per kW of inverter output produced at the headquarters in Niestetal/Kassel, Germany, by 50% to 0.084 kg/kW compared to the 2018 base year had already been achieved in 2020. Specific CO₂e emissions per kW of inverter output produced at the headquarters in Niestetal/Kassel, Germany, increased to 0.072 kg/kW in 2022 (2021: 0.057 kg/kW). This was specifically due to the continued underutilization of production capacity, as mentioned above, and the year-on-year reduction in inverter output produced.

Lifecycle assessments have already helped us in the past identify the considerable relevance of CO₂e emissions in the upstream and downstream stages of the value chain. To precisely quantify the hot spots, we supplemented the recording of our Scope 1 and Scope 2 emissions with a Scope 3 balance in the reporting year and accounted for them in accordance with the GHG Protocol. In the course of reporting our Scope 3 emissions, we also worked with external consultants to perform a quality check of our reporting for Scope 1 and Scope 2 emissions. We adjusted our emission factors and methodology accordingly, which explains why CO₂e emissions have risen against last year's report.

We worked with an external service provider to prepare our Scope 3 footprint and calculated Scope 3 emissions for 2021 and 2022 on the basis of international and scientifically sound emission factors (e. g., Ecolnvent, Defra and GaBI). This footprint included indirect emissions under the GHG categories of purchased goods and services, capital goods, fuel- and energy-related activities not included in Scope 1 or Scope 2, upstream transportation and distribution, waste generated in operations, business travel, employee commuting, use of sold products and end-of-life treatment of sold products. Other categories such as

upstream leased assets, downstream leased assets, transportation and distribution of sold products, processing of sold products and franchises were not included because they either do not apply to the SMA group's business model or have a low level of relevance and controllability. We chose to use the operational control approach to consolidate the data. This involves collecting data from all major group companies. To calculate emissions, we collected primary data for the base year of 2021 and 2022 for each of the categories we included and checked this data for plausibility. Wherever we were still unable to acquire any primary data, we used scientifically sound assumptions to generate a complete set of data for calculation purposes.

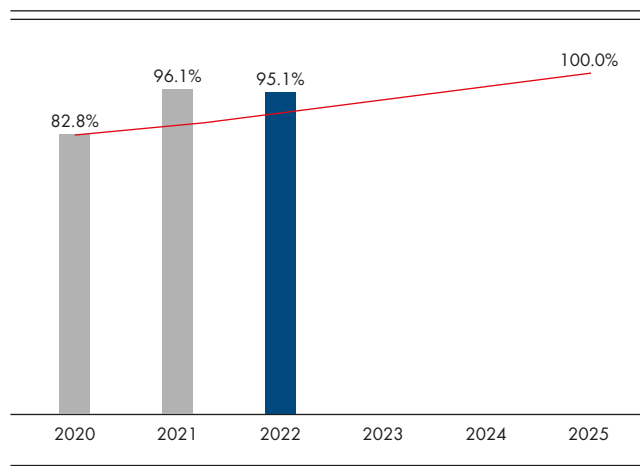
We calculated other indirect greenhouse gas emissions (Scope 3) of 600.8 thousand tons of CO₂e for the SMA group in 2022 (2021: 564.8 thousand tons of CO₂e). At 72.2% (2021: 69.8%), "purchased goods and services" is by far the most relevant Scope 3 category for the SMA group. This is followed by the categories "use of sold products" at 15.9% (2021: 18.8%), "capital goods" at 6.8% (2021: 5.4%) and "upstream transportation and distribution" at 3.4% (2021: 4.5%). The year-on-year increase in CO₂e emissions is due primarily to an increased purchasing volume for the SMA group. This meant Scope 3 emissions in the category "purchased goods and services" increased to 433.9 thousand tons of CO₂e (2021: 394.4 thousand tons of CO₂e). The high Scope 3 emissions in relation to Scope 1 and Scope 2 emissions confirms the significance of Scope 3 emissions for the SMA group. For 2023, we have set ourselves the goal of developing a holistic climate roadmap, which will also include reduction measures in the area of purchased goods and services in particular.

DECARBONIZATION

→ Our objective: 100% climate neutrality

We have set ourselves the goal of supplying the SMA group with 100% climate-neutral electricity and heating by 2025 as part of the corporate strategic objective of "holistic sustainability." Our electricity and heating supply at the headquarters in Niestetal/Kassel, Germany, has been climate-neutral since 2020. Globally, we have achieved a climate neutrality ratio of 95.1% in 2022 (2021: 96.1%).

Achievement of objective: 100% climate neutrality



In the medium term, we also plan to increase the quality of climate neutrality and consider compensation measures only when no other solution is available. In the long term, we want to expand this to our value chain, thereby further reducing our CO₂e footprint.

The contribution that we make to climate protection through the power generated using our PV inverters can also be measured, in both CO₂e emissions avoided and monetary terms. To calculate avoided emissions, in 2022 we elected to use the World Resource Institute's methodology "Estimating and Reporting the Comparative Emissions Impacts of Products" as listed in the GHG Protocol. In accordance with this methodology and taking into account the fuel mix of each of the countries in which our PV inverters are installed, we calculated CO₂e emissions per kWh of PV power relative to CO₂e emissions per kWh of conventionally generated power. With an underlying average lifetime of our PV inverters of 20 years and an average value in relation to the amount of electricity generated, the total PV inverter output sold by the SMA group since 2002 of around 118 GW helped avoid greenhouse gas emissions of almost 63 million tons of CO₂e in the reporting year. This corresponds to avoided environmental damage of more than €12 billion.

SUSTAINABLE MOBILITY

In addition to our business activities in the area of electric vehicle charging solutions, our commitment to more sustainable mobility also relates to our employees and our in-house vehicle fleet.

Our corporate mobility management aims to raise awareness of environmentally friendly forms of transportation among SMA employees in the interests of climate protection. To increase the proportion of cyclists among our employees, we introduced the option of bicycle leasing at our headquarters in 2016. In 2022, 470 employees made use of this possibility (2021: 362 employees). We also significantly expanded the charging infrastructure for electric vehicles at the headquarters in Niestetal/Kassel, Germany, in 2021. We provide our employees and visitors with a total of 72 electric vehicle charging stations at three locations with an entirely renewable electricity supply.

We are also continuing to make progress on switching our in-house car fleet over to alternative drive systems. We thereby further reduced our vehicle fleet's CO₂ emissions to 75 g/km in 2022 (2021: 90 g/km). This can be attributed in particular to an increase in the share of electric vehicles among our company cars. Within our vehicle fleet rules, employees who are entitled to a company car receive a financial incentive if they opt for an electric car instead of a car with a combustion engine. There was only a marginal increase in the proportion of electric vehicles in our pool car fleet during the reporting year to 47% (2021: 44%) due to the long delivery times for electric cars. We are currently working on updating and developing our fleet rules into which we are aiming to incorporate further sustainability criteria.

Responsible use of materials

For the SMA group, responsible use of materials in our products means continuously increasing material efficiency, substituting materials with more environmentally friendly alternatives and complying with the material requirements for our products at all times. Improving our products' sustainability performance with these and other measures is something that we take into account in the product development process already. We describe this, and the way that we handle our products at the end of their useful life, in more detail in the product stewardship area of action. By contrast, the "responsible use of materials" aspect maps the start of the product life cycle. For all these aspects, we follow the circular economy approach and strive to close material cycles and steadily reduce the impact of our products on the environment.

SECONDARY RAW MATERIALS

To promote the circular economy and conserve natural resources, it is very important to avoid the use of primary raw materials by treating waste products and returning them to the production process as secondary raw materials. In view of the growing shortage of raw materials, this is also a tool for ensuring supply reliability. With the EU Taxonomy Regulation, the increase in the secondary raw material quota has also entered the regulatory arena. To meet the DNSH criteria for "Transition to a circular economy," the Climate Delegated Act stipulates that companies must assess the availability of secondary raw materials and, where feasible, use these materials in products manufactured. During the reporting year, we analyzed the bills of materials for our product groups and prioritized the components by weight. Based on this information, the Procurement function requested information about the availability of secondary raw materials for the 80% most relevant components at our suppliers. On the whole, the level of response and data quality was still not sufficient by the end of the reporting year to make informed statements about the availability and use of secondary raw materials in the products manufactured by the SMA group. We are therefore making it our aim for 2023 to provide both our Procurement function and our suppliers with training on secondary raw materials to create greater transparency and increase the proportion of secondary raw materials in our products as best we can. In addition, the requirement to use secondary raw materials is now directly integrated into the current product development process.

MATERIAL EFFICIENCY

By reducing the materials used in our products, we save resources and thus protect the environment. In addition, resource efficiency results in economic benefits for the SMA group. An optimization tool for inverter power electronics that we developed in-house is helping us continuously improve power density and thus reduce the weight of the devices in kg per kW of inverter output produced. The target that we had originally set ourselves for 2025 of reducing the weight of our products by 30% to 1.49 kg per kW of inverter output produced compared to the 2019 base year had already been achieved since 2020. The average weight of our products came to 1.40 kg/kW in 2022 (2021: 1.43 kg/kW).

In 2022, the weight of our string inverters decreased to an average of 2.10 kg/kW output (2021: 2.27 kg/kW). For our central inverters, the weight across all products was 1.00 kg/kW output (2021: 1.01 kg/kW). The high power density also reduces the number of inverters required within a PV power plant.

AVOIDING PRODUCTION REJECTS

→ Our objective: 25% reduction of the ratio of production rejects to product output

There is further potential to increase material efficiency by way of reducing production rejects. Rejects are produced when components and component groups cannot be used in the production process due to damage or faults. By improving production processes and ensuring the quality of components in procurement, the use of materials and quality costs can be reduced. We are working closely together with our suppliers on this. In cooperation with one supplier, for example, we are ensuring that all aluminum production rejects are handed back and directly returned to the supplier's production process.

For our objective of reducing the ratio of production rejects to product output in our production at the headquarters in Germany by 25% by 2025, compared to the 2020 base year, we drew up the requirements for the design of key figures and reports in 2021. The establishment of the key figure structures was completed in 2022. The expansion of shop floor management from the Production department to the Quality department during the reporting year ensures transparent reporting in the production reject report and allows swift action to be taken. The evaluations of all production areas revealed that we had already achieved our objective for 2025 in 2022. Over the past two years, we have reduced the ratio of production rejects to product output by 43.1%. Two projects in particular that we completed effectively in 2022 within the scope of our QCore quality program contributed to this result. In addition to dealing with error patterns more quickly and efficiently by linking all quality functions to a quality improvement control loop, we have also reduced production rejects – and, in turn, our material expenses – for printed circuit board assemblies by 51% over the past two years.

SUBSTANCES OF CONCERN

Materials that are harmful to people and the environment are often required for the production of (performance) electronic components. In our standard for compliance with material regulations, we require our suppliers to comply with the relevant applicable laws such as the Regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and the Stockholm Convention on Persistent Organic Pollutants. SMA Solar Technology AG is not listed on a U.S. stock exchange and is therefore not subject to any legal requirements in this regard, but it nonetheless explicitly approves of the Dodd-Frank Act and voluntarily pledges not to use any conflict minerals (tin, tantalum, tungsten and gold) from the Democratic Republic of the Congo or an adjoining country. We expect our suppliers to do the same

and impose this requirement on them through [SMA Standard 01501](#). To keep a check on substance requirements, all substance information in the supply chain has been retrieved since 2022 via the platform of a leading solution provider in the area of product compliance. The platform allows us to keep track of substances and materials along the supply chain in even more detail than before and perform product-specific analyses.

As a company that supplies the European market with products that contain substances of very high concern (SVHCs) under the REACH Regulation in a concentration above 0.1% by weight, the SMA group is required to report the specified information about its products to the ECHA (European Chemicals Agency). The agency manages the Substances of Concern in Products (SCIP) database and ensures that information on SVHCs is available to consumers and waste operators throughout the whole lifecycle of products. By taking these steps, we help to meet the DNSH criteria for the environmental objective “transition to a circular economy” and satisfy the requirement for provision of “information on and traceability of substances of concern throughout the lifecycle of the manufactured products.”

We have undertaken to reduce the share of SVHCs under the REACH Regulation and the possible exceptions under the Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS Directive) in our products. As part of this undertaking, we have begun subjecting components that contain these substances to a substitution check. We will assess potential substitutes from an environmental, technical and economic standpoint.

We also put safeguards in place through our Global Trade Service to ensure that we meet all international trade rules, resulting in no direct procurement from countries that the German Federal Office for Economic Affairs and Export Control (BAFA) has classified as embargo countries without a prior assessment of legality.

Waste & recycling

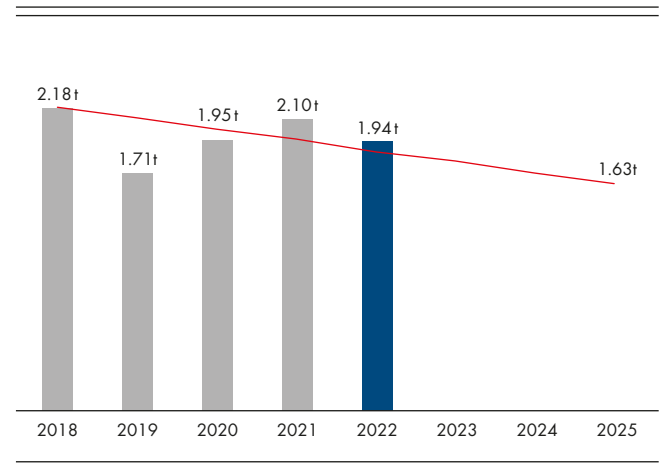
→ Our objective: 25% reduction in waste per € million of sales

In dealing with waste, we use the waste hierarchy set out in the Directive on Waste as a guideline. Accordingly, the top priority is to avoid waste. If this is not possible, then measures for reuse are examined. The next step is recycling measures, energy recovery and only then disposal. This approach to dealing with waste is consistent with the requirement of “waste management that prioritizes recycling over disposal in the manufacturing process” as outlined in the Climate Delegated Act. This also helps us meet the DNSH criteria for “transition to a circular economy.”

The total waste volume was almost unchanged in 2022 at 2,416 tons (2021: 2,413 tons). At 91%, the recycling rate was slightly lower than in the previous year (2021: 92%). The global share of hazardous waste materials increased to 14.3% in 2022 (2021: 12.5%). The year-on-year increase in the proportion of hazardous waste materials can be attributed to the introduction of a new product in particular. Larger quantities of a resin that is classed as hazardous were used to manufacture product components at the production site in Poland. The packaging materials for this resin had to be disposed of as hazardous waste.

The volume of waste generated plays a particularly important role in the operating divisions. We have therefore set ourselves a reduction target to be achieved by 2025 regarding the volumes of waste generated in these divisions. At our headquarters in Niestetal/Kassel, Germany, we performed a series of extensive process analyses on waste generation during the reporting year. They found that not all the relevant waste streams had been fully included in the calculation of the key figures in the past. We thus expanded the key figures. They now also include extraordinary waste from the operating divisions. Construction waste is the only type of waste that is still not included because this waste is subject to major fluctuations, very difficult to control and not always generated in the operating divisions. We adjusted the previous year's waste volume figures accordingly. The process analyses on waste generation also revealed that the benchmark of "waste per ton of product" that we had previously been using was no longer appropriate because it does not reflect the distribution of merchandise and services. In light of this, we adjusted the target figure and decided to use a monetary benchmark. The revised target aims to reduce the waste generated by the operating divisions at the headquarters in Niestetal/Kassel, Germany, by 25% to 1.63 tons of waste per € million of SMA group sales compared with the 2018 base year. This target also includes hazardous waste. In the reporting year, we recorded a specific waste volume of 1.94 tons of waste per € million of sales in the operating divisions at the Niestetal/Kassel location (2021: 2.10 tons of waste per € million of sales).

Achievement of objective: 25% reduction in waste per € million of sales



To avoid packaging waste, we have been working since 2012 on reusable systems for the movement of goods internally and with suppliers. To transport goods between our production sites in Germany and Poland, we use durable reusable containers that are specially tailored to our products. We include suppliers in these reusable systems as far as possible. For the packaging of finished products that are shipped to our customers, we have introduced sustainability criteria that we use as a basis for assessing packaging materials. Since 2015, we have refused to use polystyrene and PVC in our packaging for new products and to put glossy print on our packaging. We use composite materials only where this is essential for the type of product.

Nature conservation & biodiversity¹

The SMA group's operating activities do not have a substantial negative impact on biodiversity. Our production sites in Germany and Poland are located in industrial parks and thus do not significantly affect regional ecosystems. We have laid green roofs on most of the buildings at our headquarters in Niestetal/Kassel, Germany. Furthermore, in 2022, we sowed a wildflower meadow in front of the main building that provides a source of food for two bee colonies that a local beekeeper has settled on one of our green roofs.

¹ The following section is not subject to the limited assurance engagement on the combined non-financial statement.

We are aware that the use of our products in PV farms can give rise to land use conflicts involving different sustainability objectives. This concerns climate protection, protection of biodiversity and food security. A massive expansion of renewable energies will be needed to stop the global climate crisis in its tracks. Large-scale PV farms will play a key role here. At the same time, building PV power plants means an intervention in the landscape and can impair habitats if the site is poorly selected. In the view of the Managing Board of SMA Solar Technology AG, environmental aspects should therefore play a pivotal role in the choice of location. Nature-compatible design and environmentally friendly management of solar power plants, for example through grazing, can not only avoid stressing existing ecosystems, but can even promote biodiversity within these protected areas. In addition, PV farms offer ideal conditions for dual use, for example by agriculture (agrivoltaics). The use of highly efficient solar modules and inverters in the PV farms also helps to reduce land use competition, as they enable a higher energy yield on less land.

Area of action: product stewardship



For us, product stewardship means taking responsibility for the impact of our products throughout the product life cycle, from their development to the end of their lifetime. Our aim is to meet our customers' highest quality requirements and provide them with products with a long lifetime. We therefore develop high-quality products that meet the changing demands of an increasingly digitalized world and the requirements for the circular economy and that also function reliably over the long term under environmental conditions that are becoming ever more challenging as the climate crisis advances.

Our production sites are **certified** in accordance with DIN EN ISO 9001, thus guaranteeing compliance with internationally recognized quality standards. The high standards that we set for the quality and safety of our products and systems is supported by our accredited in-house test center. The expansion of our test center in 2021 enables us to test even larger devices for electromagnetic compatibility using state-of-the-art techniques and to ensure that our future solutions for PV power plants also satisfy the requirements and regulations on the international markets.

To examine the impact of our products on customer health, safety and the environment, we conduct risk assessments and extreme tests for fault simulation during the product development process, such as the creation of a flammable gas mixture that is caused to explode in the device. If necessary, we use the results to derive measures for achieving the desired condition of our products. The products of the SMA group meet all the safety standards required by each of our markets (e.g., UL, JET, VDE). There were no violations in the reporting year in connection with the effects of our products on our customers' safety and health.

Sustainable product life cycle

It is important to us to know what effects our products have on the environment so that we can derive measures on this basis and improve product sustainability. For this reason, over the past few years we have been performing internal life cycle assessments (LCAs) for representative product categories at the headquarters in Germany. The life cycle assessments help us identify the factors that influence the environmental performance of our products throughout the product life cycle. To also create greater transparency and objectivity in terms of the environmental performance of our products for our customers, in 2022, we appointed a renowned institution to prepare a life cycle assessment for one of our string inverters and had it certified by the external body DEKRA for the first time. The life cycle assessment is based on a standardized method and the impact categories recommended by the European Environmental Footprint 3.0 (EF3.0). It therefore comprises a total of sixteen environmental impact categories, which have been split into target and control categories based on relevance and stability. The outcomes validate our focus on the responsible use of materials and give us crucial guidance on what measures to take regarding product design. Overall, the outcomes from the life cycle assessments that we conducted earlier have proven true, specifically the findings on the Product Carbon Footprint (PCF) and the requirement to reduce CO₂ emissions in the upstream stages of the value chain.

In addition to conformity with the requirements of ISO 14040 and ISO 14044, DEKRA confirms an overall professional approach in accordance with the current state of the art. The underlying data, the life cycle model as well as the assumptions and calculations are also classed as appropriate and valid and, in the reviewer's opinion, they result in plausible outcomes as well as relevant conclusions and recommendations.

Based on the results, we have launched a follow-up project to develop internal design tools that will provide our developers with even better support in making decisions that are in the interests of environmental protection right from the product's conception. We will be publishing a summary of the life cycle assessment on our [website](#) in the first half of 2023.

PRODUCT LIFETIME

Within our Design for Reliability process, we separately qualify components that are critical to the product's service lifetime before their use in SMA devices. As part of our extensive functional and endurance tests, within a test period of six months we can map out a service lifetime for components of 20 to 25 years, identify potential causes of failure and failure rates as well as derive countermeasures. We are working closely together with our suppliers on this. The results of the tests are collected in a database and taken into consideration for every potential new use of the components in question. In addition, before series production begins, we validate our inverters through a series of tests conducted both in our certified test centers and in the field under real-life conditions. In these tests, we simulate a range of environmental and grid connection conditions, artificially age the devices and test their electromagnetic compatibility. We thus ensure that our products and solutions not only are of a high quality but also meet all international standards and can be adjusted to suit various requirements and conditions. We once again significantly increased the already high lifetime of our products for the Sunny HighPower Peak3. Provided it is installed and operated correctly, we can give proof of a lifetime of 25 years on the basis of extensive age simulations.

The design of our inverters with a focus on high reliability, the continuous reduction of wearing parts and efficient maintenance routines all make a contribution to meeting the DNSH criteria for "transition to a circular economy." The Climate Delegated Act calls for a "design for high durability of products manufactured."

REDUCTION OF FAILURES IN THE FIELD

→ Our objective: 1.0% field failure rate

One important key figure for the quality of our products is their field failure rate. This key quality figure refers to the number of failures in the field after the products are approved. It includes failures for any devices that were shipped in the past two years (monthly rolling key figure; ratio of field failures over the past two years to the number of units shipped over the past two years). For each SMA product, ambitious and specific product lifetime and field failure rate targets are defined and assessed each year. Field behavior is evaluated continuously. Identified deviations are prioritized in terms of their impact from the customer's perspective and are remedied as part of a problem-solving process. Customer feedback is incorporated on an ongoing basis in the development of new products. Based on the failure rates and the installation figures for the products, we derive an overall failure rate target for overarching product groups and for the SMA group. In order to adhere to our commitment to quality, we have set ourselves the

ambitious target of reducing the field failure rate of our products to 1.0% by 2025. We derived this target in the 2018 base year by reference to the current and forecast products and the product mix in the field. In the reporting year, the field failure rate fell to an average of 1.5% (2021: 1.7%) with a positive trend at the end of the year. The improvement in failure occurrences had a positive impact on the field failure rate. Our extensive quality program QCore and the follow-up program for holistic quality we launched in the second quarter of 2022 are helping improve the field failure rate and permanently reduce quality costs.

REPARABILITY AND REUSE

To further minimize the environmental impact of our inverters, we aim to reuse the greatest possible proportion of materials once the inverters reach the end of their useful lives. We thereby become less dependent on raw material extraction, which involves working and environmental conditions that are difficult to control, and simultaneously enhance our supply security.

In our Global Repair Program, we have developed this approach in order to recycle used devices and components as comprehensively as possible and return equipment parts that are no longer usable to the material cycle. Reuse of components in manufactured products is also a requirement within the DNSH criteria for "Transition to a circular economy." Our approach is as follows: If the source of the fault for devices in the field is known, the devices that require servicing are repaired by replacing defective components at the system operator's location. Only if this is not possible, the devices will be sent to our Global Repair Center in Niestetal, Germany, and replaced with reconditioned devices. We repair defective devices wherever possible and transfer them to our replacement device pool.

Components and assemblies that we can reuse are removed from decommissioned devices and reused for repair purposes. Once the system and process requirements were defined, a pilot project was implemented for this purpose and successfully completed in the reporting year. The process has been incorporated in day-to-day operations at the SMA group's Global Repair Center, and we have started the process of rolling out the approach to other products.

As part of the "Refurbished Inverter" subproject, we have also developed a process within the Global Repair Program that allows us to offer refurbished products for which no use has been found in service for sale as used goods. The process was applied in a few cases in the reporting year.

To decentralize inverter repair activities and also provide the required service closer to where the inverters are deployed as well as to increase reuse of components and extend product service life, we chose a repair partner in the U.S. in the course of the reporting year. The partner's employees are currently being trained at SMA's headquarters, and we have started to draw up a process for the flow of inverters and components for repair. After the project in the U.S. is completed, we will expand the analysis to other global locations.

Another component of the Global Repair Program was the "Disassembly of Inverters" subproject, where we assessed to what extent we can improve recyclability through inverter disassembly. Both our in-house team and an external service provider dismantled an inverter into its constituent parts and assigned them to recycling categories. The project showed that because of the high recycling standards and legal requirements for waste disposal companies in Germany, single-origin scrap offers no significant added value over manual disassembly when it comes to the recycling rate.

The results of the certified life cycle assessment also attest to the high recyclability of our inverter components. We therefore satisfy the DNSH criterion stipulated for the "transition to a circular economy" of assessing the availability of and, where feasible, adopting techniques that support design for recyclability and easy disassembly.

During manual disassembly, we also found that some components could be separated only partially. This is because our development philosophy is focused on the longevity and reliability of our products. This can lead to conflicts between disassembly requirements on the one hand and serviceability requirements on the other. To identify the best possible solution here, the Development, Service and Repair functions are in constant dialogue with each other during the product development process to achieve the best outcome for SMA products in due consideration of all the relevant aspects.

PRODUCT END OF LIFE

Responsibility for our products throughout their life cycle does not end when they are sold, but also includes proper disposal. Extended producer responsibility (ERP) is a key principle of the European WEEE Directive. It outlines responsibilities for products from the product design stage through to the sound disposal/recycling of products. The WEEE Directive sets out the proper procedure for dealing with end-of-life electrical and electronic equipment. The purpose of the directive is to prevent or reduce the harmful effects of end-of-life electrical and electronic equipment, conserve resources and improve resource efficiency. In Germany, the directive was implemented through the Electrical and Electronic Equipment Act (ElektroG), which also applies for electrical and electronic devices that are placed on the market by the SMA group in Germany.

In line with this, we report the quantities of products placed on the German market to the Stiftung elektro-altgeräte register (ear). German producers of electrical and electronic equipment must register themselves with this body and report on the quantities of products they have placed on the market. By reporting this information to the Stiftung elektro-altgeräte register, we ensure that for the quantities of products we have placed on the market in Germany, our devices are registered. On this basis, the Stiftung elektro-altgeräte register also coordinates the provision of containers for handover facilities at public waste disposal authorities. This is how we meet our responsibilities for proper disposal/recycling of end-of-life equipment. We satisfy requirements regarding the proper marking of electrical and electronic equipment with type labels. The marking tells consumers that our devices should not be disposed of with household waste, but must be collected separately.

Sustainable product development

Our top priority when developing our products and solutions is to consider the overall system across the sectors of electricity, HVAC and e-mobility. By standardizing the architecture of the core components (platform strategy) and integrating key system functions, we are increasing the proportion of identical components and software modules across the entire portfolio while also reducing the number of components in the system. The focus here is on highly integrated and digitalized solutions that cover as many functions as possible and thus meet the demands for sustainability, material efficiency and ease of use.

Product development at the headquarters in Niestetal/Kassel, Germany, follows a defined product development process (PEP). This covers the definition of product requirements through to the series production stage and ensures process and product quality. Our guidelines for sustainable product design set out key design criteria that have a positive impact on the sustainability performance of our products. In the reporting year, we started to apply elements from the guidelines to the development of new products.

The product development process also takes account of the issue of design for easy disassembly and serviceability, which is addressed under the DNSH criteria for the environmental objective "transition to a circular economy." The relevant SMA guidelines cover various criteria including duty to repair, replacement of defective components in the field and availability of spare parts throughout the entire useful lives of the products (usually 20 years). The optimization tool that we developed for inverter power electronics factors in the quality criteria concerning the use of materials (weight), volume, cost and performance (efficiency) to calculate the optimal design using cutting-edge technologies. Optimal sizing of power electronics has increased the power density of string inverters in the higher power classes fivefold over the past ten years (more power in kVA per kilogram of material used).

Since 2021, we have also been working with a renowned research institute on a concept for the product- and component-specific evaluation of product sustainability. Based on the results, we will further develop our design criteria for sustainability. The life cycle assessment that was prepared by a highly respected institution during the reporting year has already enabled us to identify the component groups with the largest CO₂ footprint. The next step will entail working with the relevant departments to derive ways of reducing the CO₂ footprint.

We also ensure resource-efficient phase-out management, which is based on a defined phase-out process (POP). One task here is to manage the use of materials in a way that avoids rejects and ensures further use of materials in subsequent generations. This task is made more difficult particularly when there is a broad product portfolio and subsequent generations widely differ from previous products.

When developing our products and solutions, we also anticipate future requirements in areas such as digital communication and cybersecurity, thereby meeting the requirement for adaptability of products manufactured as part of the DNSH criteria for “transition to a circular economy.” The SMA system architecture guidelines set out rules for software development, which ensure that all components and applications are established on a consistent basis, interact seamlessly within an efficient overall system and can be adapted to new requirements through remote updates. We will also provide our customers with this level of adaptability for older devices in the future. They will not be required to replace fully functioning, existing devices in order to meet new requirements, but instead will be able to continue using these devices by integrating an additional component.

Research and development expenses increased to €86.8 million in the reporting year (2021: €77.7 million). The research and development cost ratio in relation to sales came to 8.1% (2021: 7.9%). The SMA group offers solutions in the field of renewable energy and efficient energy use, meaning that its entire product portfolio can be allocated to low-CO₂ technologies. For this reason, we attribute all expenses for our product development and R&D to the development of low-CO₂ technologies.

Further information on our development approach can be found in the Combined Management Report in the “[Research and development](#)” section.

Area of action: employees



The high level of commitment and willingness of our employees, trainees, learners and temporary employees to always learn are essential factors in the success of the SMA group. Diversity, equal opportunities, safeguarding employee rights and maintaining high labor standards (including freedom of association) are just as much a matter of course for us as complying with all working hours legislation. Within the SMA group, working hours and break times are determined by the company on the basis of applicable legal requirements in the respective countries.

In the competition for talent, it is important to us to be perceived as an attractive employer. That is why we are continuously developing our corporate and leadership culture, which is characterized by fairness and respect, putting our values of trust, performance and team spirit into practice in our day-to-day work and creating scope for responsible, entrepreneurial action and opportunities for shaping international collaboration. We have mapped this in our leadership fundamentals developed over the past few years. These are aimed at creating an environment in which our employees, trainees, learners and temporary employees can fully develop their individual talents and potential and apply these for the benefit of our customers. The focus here is on a high level of self-organization in cross-functional and international teams, entrepreneurial thinking and action, a strong customer focus and valuing diversity and life-long learning. We have transferred the leadership criteria to our instruments and tools and see them as the basis for our leadership activities.

DEVELOPMENT OF THE NUMBER OF EMPLOYEES

As of December 31, 2022, the SMA group had 3,464 employees worldwide (December 31, 2021: 3,353 employees).¹ Employee figures increased in Germany to 2,454 (December 31, 2021: 2,364) and to 1,010 abroad (December 31, 2021: 989). Employee turnover increased to 5.8% in the reporting year (2021: 4.4%), corresponding to 197 employees (2021: 144). We define employee turnover as departures by employees (resignations) as a percentage of the average headcount. It is a global policy for employees who have resigned to be invited to take part in an exit interview in the form of a standardized, digital questionnaire. The responses are systematically evaluated by Human Resources so that countermeasures can be taken for any negative anomalies.

¹ We report trainees, learners and temporary employees in a separate category. Learners include student workers, auxiliary staff, interns and graduates.

In addition, the SMA group uses temporary employees to absorb order fluctuations. Temporary employees are mostly deployed in the areas of production and logistics. The solid order situation meant that, as of the reporting date, the number of temporary employees increased significantly by 253 to 479 worldwide (December 31, 2021: 226).

Employees

Reporting date	2022/ 12/31	2021/ 12/31	2020/ 12/31	2019/ 12/31	2018/ 12/31
Employees (excl. trainees, learners and temporary employees)	3,464	3,353	3,126	2,998	3,231
Learners	105	94	80	67	50
Trainees	66	63	58	59	72
Temporary employees	479	226	388	442	290
Total employees (incl. trainees, learners and temporary employees)	4,114	3,736	3,652	3,566	3,643

Full-time equivalents

Reporting date	2022/ 12/31	2021/ 12/31	2020/ 12/31	2019/ 12/31	2018/ 12/31
Full-time equivalents (excl. trainees, learners and temporary employees)	3,278	3,177	3,065	2,937	3,169
of which domestic	2,277	2,198	2,114	2,037	2,060
of which abroad	1,001	979	951	900	1,109

A change to the allocation policy meant that the division of employees between the domestic and foreign categories was adjusted for the years 2018 through 2020.

As a building block for securing the next generation of employees, vocational training has a high priority at the SMA Group. We currently offer training at the Niestetal/Kassel location in five different training occupations in the industrial/technical and commercial sectors. As of December 31, 2022, 66 young people were in vocational training (December 31, 2021: 63). Following vocational training, there is the possibility for further employment. The trainees benefit from the international nature of the organization and, apart from the opportunity to complete language training courses, they have the chance to complete an internship on project work at an international location for a defined period of time.

In addition, we are committed to topics relating to young MINT (mathematics, information technology, natural sciences and technology) talent. This commitment includes taking part in the MäteB program, which enables girls from Kassel schools to gain insights into technical professions, and organizing the regional competition "Jugend forscht" (Youth Researches) in northern Hesse. In addition, 105 learners (2021: 94 learners) gained practical experience and some initial insights into potential career areas at the SMA group in 2022.

Additional key figures on employees, in particular on the gender balance at the management level, can be found in the overview of sustainability key figures at the end of the combined non-financial statement.

SAFEGUARDING EMPLOYEE RIGHTS AND MAINTAINING HIGH LABOR STANDARDS

→ Our objective: 100% coverage of SMA group companies under a risk and monitoring system for labor standards

To ensure that the rights of employees are upheld and a high standard of labor practices is maintained throughout the whole SMA group, we set up a group-wide due diligence process in the reporting year. With this, we not only meet the minimum safeguards of the Taxonomy Regulation but also exceed them. Our objective is to include 100% of SMA group companies with active business operations under the specified risk and monitoring system for labor standards by 2025. The risk-based approach covers the areas of freedom of association and assembly, general working conditions, forced labor and human trafficking, child labor, discrimination, wages and remuneration, sustainable procurement practices as well as occupational health and safety. Since risks relating to working conditions can vary between countries and economic sectors, we have covered both factors in our identification of risk with the help of the CSR Risk Check Tool from the German Agency for Business & Economic Development. In the next step, suitable indices and indicators were used to assess the risks, which were then classified into risk categories from very low to very high. We supplemented this information with internal reports to the Compliance function and the SMA speak-up line as well as with input from a risk software.

In 2022, we audited all locations in countries with at least a medium risk for the risk categories identified. This means that we have already covered 8 out of 21 group companies with active business operations under the risk and monitoring system. The audit team has defined improvement measures based on the results and the group companies are using the system to monitor implementation of these measures. The results of the audits

and any necessary escalations are reported to the Sustainability Committee. The audit team normally comprises an auditor from the Management Systems department, a representative from HR and the Human Rights Officer who was appointed in the reporting year. We will update the risk assessment on an annual basis. Locations will be monitored based on the level of risk; this process will be set out in an audit plan. In 2022, there were no violations of labor laws identified at any locations of the SMA group, nor were there any relevant convictions under labor law.

Occupational health & safety

The safety and health of all SMA group employees is a high priority for us. The processes for occupational health and safety at our headquarters in Niestetal/Kassel, Germany, have been [certified](#) in accordance with DIN ISO 45001 since 2018. As of December 31, 2022, 2,812 employees, trainees, learners and temporary employees of SMA Solar Technology AG at the Kassel, Niestetal and Fuldabrück locations have been covered by a certified management system for occupational health and safety. This corresponds to 68% of all employees, trainees, learners and temporary employees in the SMA group. Various subject-specific and department-specific meetings take place regularly to ensure that the topic of occupational health and safety management is firmly established at the production sites. These include the quarterly meetings held by the Occupational Safety Committee, which are chaired by the Labor Director at the headquarters in Germany with the participation of safety experts, the Works Council, the safety officers and the occupational health physicians. In the reporting year, the Global Sustainability Committee tasked the Health & Safety division with defining and enacting safety guidelines that will apply worldwide for all SMA group companies. The first two guidelines, which cover "Responsibilities and delegation of responsibilities for occupational safety" and "Preparing hazard assessments" were enacted in 2022. In the coming year, all other topic areas that are relevant for the SMA group will be addressed in the form of internal guidelines and consolidated in the "SMA Health & Safety Handbook." The guidelines must be implemented globally by 2025 at the latest in accordance with Strategy 2025.

Before implemented or used for the first time, new activities, work processes, workplaces and hazardous substances are assessed in terms of potential risks and hazards at our production sites. This process is performed at the headquarters following the STOP procedure. The substitution check (S) ensures that it is necessary to perform the activity or to use the hazardous material. If this is the case, technical measures (T) to reduce the risks are defined. If such measures are not possible or not sufficient, organizational measures (O) are taken. In the final step or in addition to the other measures, personal protective measures/equipment (P) have to be used.

In addition, operating instructions and training are provided to ensure that all employees who handle hazardous substances are well-informed about the hazardous substances, their potential risks, emergency procedures and potential impacts to health. This training must be performed and documented before these activities begin. Employees at the headquarters who are regularly exposed to hazardous substances are also offered medical check-ups.

The obligation to perform hazard assessments is transferred to the executives in writing. While performing a hazard assessment, they may bring in the experts of the Occupational Health & Safety division for support. A defined process, subject-specific templates and support from the division ensure consistently high quality and monitoring of hazard assessments. The Occupational Health & Safety division also regularly checks that the hazard assessments are up-to-date and reports the results as part of the management assessment to the management.

In general safety instructions, we inform all employees in Germany and at the production site in Poland about the importance of occupational safety, obligations of employers and employees, safety organization, behavior in case of an emergency, and provide general information on safe and healthy behavior. In addition, there are workplace-related instructions in the divisions. Extensive information on occupational health safety management, the current development of accident rates and templates, processes, organizational charts and contact details of the responsible contact persons are also available on the intranet for all employees.

The deployment of external companies on the SMA company premises in Niestetal/Kassel, Germany, and at the production site in Poland is specified via processes and corresponding guidelines. The guideline contains standardized requirements for the protection of people, property and the environment, and describes interfaces, tasks and responsibilities between the external company and the SMA group. All external companies are provided with the guideline before starting work. They confirm that they acknowledge and comply with the requirements. Contractual partners with service, framework or work contracts confirm receipt and compliance for the duration of the contractual relationship when they sign the contract.

OCCUPATIONAL SAFETY

→ Our objective: Global lost time incident rate of a maximum of 0.8

The focus of occupational health and safety management at the SMA group is on avoiding work-related accidents and illnesses. As an employer, we have an obligation to eliminate possible risks and hazards. Despite all the measures mentioned, however, work-related accidents cannot always be avoided and we

are working continuously to improve our processes. During the reporting year, we reviewed our objective to keep the lost time incident rate (LTIR; accidents with at least 1 lost day x 200,000 in relation to hours worked) permanently below 1.5 at our production site in Niestetal/Kassel, Germany, between now and 2025 and set out a revised objective for the whole SMA group. The new objective envisages a global LTIR of a maximum of 0.8 for 2025 across all major SMA group locations. The target value is lower than the previous target value that was limited to the headquarters in Germany because the locations abroad mostly consist of office workplaces where work-related accidents naturally occur more rarely. Globally, the LTIR came to 0.96 in the reporting year (2021: 0.83). There were no serious work-related accidents in the reporting year. These are classed as accidents at work resulting in injuries that the injured employees are not able to fully recover from within six months, or where the employees are not expected to regain the state of health they had prior to the accident. In the reporting year, there were eleven work-related accidents within the SMA group that had high potential for a serious outcome but ultimately did not entail any serious consequences. Five of these accidents were electrical accidents. There have not been any fatal work-related accidents at the SMA group since the company was founded. The key figure includes work-related accidents involving SMA employees, trainees, learners and temporary employees.

Work-related accidents at the production sites are documented and investigated. The procedure for investigating accidents is based on the severity of the work-related accident. Possible causes and countermeasures for more minor accidents in production are discussed directly on-site at the daily meetings before the start of the shift. For more serious accidents, a detailed accident investigation report is prepared and measures are defined.

The nature of our business field involving the commissioning, servicing and maintenance of systems within our service business and the operation of electrical test areas entails a particular risk for the SMA group in connection with electrical current. This includes arcing, fire hazard and electrocution that may have serious or lethal consequences. We have taken extensive measures to minimize the risks in these areas. These include compliance with mandatory specifications for setting up and operating test areas. In addition, test areas may be entered only by electrically qualified persons who receive regular training and instructions. Access is managed using electronic access control.

Despite all the precautions, emergencies involving risks to people, property or the environment cannot be ruled out in principle at the company. SMA Emergency Management regulates how to handle emergencies in the form of a binding guideline for the headquarters in Germany. For many types of emergency, such as fires or work-related accidents, there are also emergency plans specifying in a compact form what needs to be done and who needs to be informed when such incidents occur.

The goal of the Business Continuity Framework (BCF), which was newly regulated for SMA Solar Technology AG and its German subsidiaries in 2021, is to make it easier for the departments to identify potential major disruptions and to manage these effectively and efficiently in case they occur. We define major disruptions as disruptions that cannot be managed by the organizational structure and process organization of emergency management and that may be associated with significant monetary or reputational damage. In connection with the new regulation of the BCF, the relevant departments identified potential operational risks so as to be able to respond to these faster if they occur. This gives the departments a framework for ensuring the proper functioning of the SMA group's business operations until normal operations have been fully restored. A task force is being set up under the BCF that is to be specifically assembled depending on the type of major disruption and is commissioned by the Managing Board.

HEALTH

→ Our objective: 70% age-stable workplaces

SMA's health management at the headquarters in Niestetal/Kassel, Germany, is aimed at avoiding chronic unfavorable stress and thus minimizing the risk of illness and maintaining employees' ability to work and be employed in the long term. As employees age, comprehensive health promotion and ergonomics are becoming increasingly important. Our health measures are developed and implemented to meet the requirements of particular target groups and genders. One area of focus is ergonomic age-stable workplace design in production and logistics.

In this context, the creation of age-stable workplaces plays an important role in SMA's health management. With age-stable workplaces, we create working conditions that allow all generations to perform to their full potential without suffering chronic unfavorable stress or long-term or delayed effects. We have set ourselves the target of assessing 100% of the workplaces in the operating areas at the headquarters in Niestetal/Kassel, Germany, for age-stability and increasing the proportion of age-stable workplaces in these areas to 70% by 2025. We made considerable progress in the course of the reporting year. By the end of the year, 73% of workplaces had been evaluated (2021: 64%). Of these, 73.9% are currently age-stable (2021: 56.4%). As a result of the coronavirus pandemic, the sickness rate – including long-term sickness – at our headquarters in Germany rose in 2022 to 7.0% (2021: 5.3%). In Poland, it fell slightly to 3.4% (2021: 3.6%).

External occupational health physicians support us with occupational health and safety management and with ergonomic workplace design at the production sites. Their tasks include taking part in company inspections, participating in hazard assessments, particularly in the case of hazardous substances, and attending meetings of the Occupational Safety Committee in Germany. In addition, they carry out the mandatory and optional examinations as determined in the hazard assessment, as well as in-house medical consultations. The occupational health physicians are assigned to the Occupational Health & Safety department. This department coordinates appointments for examinations, which take place on the company premises so that they are close by for the employees. Information on the occupational health physicians, their tasks and contact options is provided to SMA employees in the annual safety training and on the intranet. The occupational medical services are available to all SMA employees.

In February 2020 already, the SMA Corona Taskforce was founded with employees from all relevant functions. It assesses the current situation and decides on and coordinates appropriate measures in close consultation with the Managing Board. The taskforce provides information to all employees in a newsletter when the need arises and makes additional information available on the intranet. In addition to managing the taskforce, Health Management is also responsible for generating knowledge for the interdisciplinary team and for continuous dialogue with external experts. Like last year, a vaccination campaign was held at the headquarters in Niestetal/Kassel, Germany, in the reporting year. Around 1,000 employees once again took up the offer of a coronavirus vaccination. Case management was successfully decentralized in the second half of the year and responsibility for this was handed over to the executives once training had been provided by the coronavirus taskforce. Internal infection chains could be avoided and business operations be maintained in full and without interruption again in 2022.

Fair pay & benefits

The attractive overall package that the SMA group offers its employees includes market- and performance-oriented pay and extensive benefits. SMA Solar Technology AG and its subsidiaries are not subject to any collective bargaining agreements. Our goal is to use individual company regulations to create attractive employment conditions that are geared toward the needs of both the employees and the company. In Germany, this is done on the basis of employer/works council agreements, for example, which are always concluded in cooperative collaboration with the employee representatives.

In key operational change processes that affect the employees directly or indirectly, the employee representatives are involved in the context of co-determination and beyond. Changes are announced to and discussed with the employees before they are implemented.

FAIR PAY

It is important to us to acknowledge our employees' commitment and performance through appropriate remuneration in line with the market at a level that has been calculated for all group companies and is maintained. Furthermore, the job level model that was introduced in Germany in 2016 and has since been rolled out at almost all SMA group locations, along with the associated remuneration system, help create transparency and enable comparison of pay across all areas of the company. It is based on the requirements of each position, the experience and individual performance. The remuneration system is organized and set up in a way that gives equal importance to the different career paths, such as professionals, project managers and management. In addition to the basic remuneration, the system is also supplemented with variable target-based remuneration components in the higher job levels.

Under the remuneration system, employees' individual remuneration is determined within defined regional salary ranges according to the same criteria. The remuneration ranges are regularly reviewed globally every two to three years and are adjusted if necessary. Remuneration is based on the middle of the market. The review is based on recognized benchmarks from specialist consultants. Ever since the establishment of temporary work at the headquarters in Germany, temporary employees at the SMA group have received the same hourly wage as SMA group employees performing similar duties.

SMA group employees in management, project management or professional career paths, which are assigned to higher levels of the structure under the job level model, receive a variable remuneration component that is linked to short-term targets. In each case, half of this component is based on the SMA group's EBIT and the other half on individual targets. In Sales in particular, remuneration is also supplemented with variable target-based components right from the middle levels of the structure.

The "Sales Kicker" for all employees of the parent company SMA Solar Technology AG, whose main activity is to sell SMA products and services, is seeking to establish performance-based remuneration on an even broader basis. This variable sales bonus does not form part of employees' regular pay; it is an additional

payment that is received when the sales targets set have been achieved by a large margin that is way above the level expected in the assessment period. The sales targets are agreed upon between employees and their direct line managers at target discussion meetings. These are normally joint team targets designed to recognize team achievements and optimize teamwork.

The remuneration of all SMA group employees, with the exception of executive officers, also contains a variable component based on the company's annual profit (EBIT margin). The EBIT margin to be achieved corresponds to the targets set for the Managing Board for the respective fiscal year. The general conditions for profit sharing are the same across all countries. All temporary employees working at the company worldwide are also entitled to a share of the profit. In addition to a fixed non-performance-based bonus, employees of the parent company SMA Solar Technology AG also receive an annual Christmas bonus if a target EBIT margin has been achieved in the fiscal year.

For us, it goes without saying that there are no systematic differences in remuneration for comparable roles, particularly between female and male employees. In 2021, we analyzed possible structural salary differences between men and women (gender pay gap) in Germany, and in the reporting year we deepened this analysis. The analysis did not identify an adjusted gender pay gap. However, the results show a structural discrimination against female employees with regard to the headquarters in Niestetal/Kassel, Germany. Further information is provided in the [“Diversity & equal opportunities”](#) section.

BENEFITS

In addition to fixed and performance-related remuneration components, our remuneration system includes various additional monetary and non-monetary benefits. When it comes to company benefits, we do not in principle differentiate between full-time and part-time employees or between employees with fixed-term and with permanent contracts. However, specific conditions and requirements may mean that certain groups of employees are excluded for factual reasons or that special financial benefits are reduced depending on working hours. Because they are not directly employed by the SMA group, temporary employees can only profit from company benefits that do not require a direct employment relationship. The benefits offered may differ worldwide and be based on the needs of the individual national companies and on local norms.

In Germany, the benefits are regulated in employer/works council agreements. They include additional benefits such as special leave, lifelong working-time accounts, public transport subsidies, sick pay allowance, company pensions, death benefits and anniversary bonuses. We offer medical care components and company pension models globally based on the market standards and statutory requirements. For employees in Germany who have been working at the company for at least six months, the company pays a contribution of €50 a month to the company pension plan. Employees also have the option under a defined contribution pension scheme of transferring part of their salary to a direct insurance policy or a provident fund. We pay a financial contribution to the amount paid into a direct insurance policy. For every euro of deferred remuneration paid into the pension plan, employees receive a subsidy of 15%. Through framework agreements with insurance companies, employees at the German location also receive discounted offers for occupational disability cover and supplementary medical insurance. For periods of long-term sickness, employees in Germany receive an allowance to make up the difference between statutory sickness benefit and their net basic salary, for a period of 26 weeks starting from six months of company service and for a period of 52 weeks starting from ten years of company service. In 2022, we introduced an employer-subsidized phased retirement program to make the transition to retirement easier for employees working in lower job levels at the production site in Germany whose work involves intense physical activity.

Various other company benefits are offered to encourage and support a good balance between family and career, including family services, fast and unbureaucratic emergency childcare and childcare during school vacations. There is a daycare center very close to the headquarters in Niestetal/Kassel, Germany, that allows for individual childcare. The additional child sick days that SMA Solar Technology AG allows above and beyond the statutory minimum and the option to take family caregiver leave for a relative requiring care also contribute to a better family/career balance.

In a global benefits analysis, we recorded our employees' satisfaction with the respective national company benefits from 2018 to 2020. Based on the analysis, we identified a need for action in the short term and adjusted benefits accordingly. In addition, we derived long-term cornerstones for a global benefits strategy from the results. The benefits strategy is a tool for categorizing and prioritizing actual and potential company benefits. It is based on the employees' individual needs and life phases and embedded in the SMA group's corporate and brand values. At the heart of the strategy are the needs of each individual employee. Based on this starting point, the benefits portfolio can be broken down into

financial benefits, offers for promoting physical and mental health, support for a balanced lifestyle and possibilities of individual development paths. Existing benefits are adapted to the strategy and potential new benefits are evaluated and selected in line with the strategy. In this way, we want to ensure that employee needs permanently determine the focus of the company benefits.

We do not currently offer participation in the company's capital (share ownership). However, we are planning to offer this in the medium term provided there is a favorable trend in the company share price. With that in mind, we have already started to consider concepts for a global share ownership program.

Diversity & equal opportunities

→ Our objective: 26% women in the workforce as a whole

The SMA group is committed to diversity and equal opportunities. We see the diversity of our employees as an asset to our company. In joining the "Charta der Vielfalt" (Diversity Charter) in 2011, we committed ourselves to creating a work environment in which all employees have equal opportunities for development, regardless of gender, nationality, religion or belief, disability, age or sexual orientation.

We strive to integrate different cultures and strengthen collaboration between employees of different nationalities. The SMA group employs people of 66 different nationalities in 20 countries. In addition to promoting international collaboration, the possibility of deployment to our international locations and intercultural training, in 2017, we started implementing a concept to integrate refugees into our vocational training program.

We truly believe that diversity enriches teamwork and plays an important role in the financial success of a company. As such, increasing the proportion of female employees within the workforce is a key element of our diversity strategy, which focuses on gender diversity. Among other things, this strategy aims to increase the proportion of female employees with the SMA group as a whole to 26% by 2025. The Supervisory Board has acknowledged the strategic importance of this objective for the SMA group by including attainment of this objective in both the Managing Board members' personal targets for 2022 and in the Managing Board's long-term targets for 2025 under the 2021 remuneration system. On December 31, 2022, 73.6% of employees were male (December 31, 2021: 75.3%) and the proportion of women increased to 26.4% (December 31, 2021: 24.7%). This means that we achieved the target proportion of women set for 2025 in the reporting year. By setting and publishing our targets

for the proportion of women in the workforce as a whole, we have been raising awareness on gender equality for recent years. Keynotes and unconscious bias trainings have also helped to broadening awareness of the need for greater (gender) diversity. The proportion of newly recruited women increased to 34% in 2022 (2021: 22%). At the same time, the proportion of women who resigned decreased to 18% (2021: 27%).

Increasing the proportion of women remains a focal point of our diversity strategy. The planned extension of our production site at the headquarters in Germany will result in a greater number of new recruitments in the production area. In this context too, we must continue to increase the proportion of women and always have our targets in mind. We have set ourselves a target of achieving a level of 30% of women in the workforce as a whole by 2030. In 2022, we also reviewed our targets for the proportion of women in professional and executive positions, which until then had been limited to the headquarters in Germany, and set out a series of new global targets. The aim is for women to account for 25% of professional roles and 19% of executive positions within the SMA group by 2025, and 30% and 22% respectively by 2030. By focusing on the appointment of women to executive positions, we already increased the proportion of women in these roles to 18% in the reporting year (2021: 17%).

To drive forward attainment of these targets in an even more accelerated and focused manner, in 2022, the company created and filled the new role of Diversity & Cultural Development Manager in the Human Resources department. The manager's responsibilities also include contributing to the continued development of an overall strategy for diversity and inclusion that extends beyond gender diversity. This strategy is expected to be finalized in 2023.

In 2022, we performed an in-depth analysis of the indications of possible structural salary differences between men and women that had been identified in 2021. We performed a systematic and differentiated analysis of diversity data with input from the Diversity Reporter. The analysis confirmed the indications of structural salary differences. This situation occurs because women are underrepresented in the workforce as a whole and because women often work in career paths with lower pay. Since the adjusted gender pay gap does not show any significant differences, however, we implemented further measures in 2022 aimed at reducing the structural differences and thus increasing the proportion of women, particularly in higher structural levels, and achieving our objectives in the „diversity & equal opportunities“ aspect. This included a detailed analysis of gender diversity to provide a basis on which we have already started to inform all company divisions about the current state of affairs. We will press ahead with this information campaign in 2023 and also roll it out at our international locations.

Additional measures include an employer branding campaign specifically targeting female applicants; unconscious bias training for all relevant employees in Human Resources to ensure equal opportunities in the application process; offering all job vacancies in the SMA group as full-time and part-time positions; as well as establishing and promoting networking and dialogues to raise greater awareness of the issue and improve the level of gender expertise. In addition to the women's network Woman@SMA, this also includes a self-organized queer network within the company that looks at issues pertaining to a queer-friendly work environment. Another new format is our "Diversity Tuesdays", which we introduced in 2022. In this series of virtual events, internal and external experts shared their expertise and ideas on issues, including gender equality, intercultural competence and gender-appropriate language. This format will be continued in 2023.

Training¹

The SMA group operates in a dynamic environment that places high demands on our employees. Radical developments, such as rapid digitalization of the energy supply and Work 4.0, require new skills and competencies. For us, proactive personnel development therefore means enabling our employees to engage in lifelong, self-directed learning as well as in individual development and qualification for current and future challenges.

In addition to external training opportunities, employees of the SMA group benefit from a diverse internal training program that they can make use of in line with their individual needs and learning objectives. Alongside methodological skills training, language courses and a variety of other topics, this program also includes the "Masterplan" learning platform. It contains video courses on various topics covering everything from digitalization and soft skills through to new technologies and sales expertise. Employees can organize and use the courses themselves to suit their requirements. The departments have their own training budgets in order to meet their individual training requirements with specific internal and external training offers. Quality assurance of the training offers is performed, for example, by analyzing anonymous feedback forms on our digital training platform. We also use feedback forms to continue optimizing our training opportunities on an ongoing basis with our employees' needs in mind.

Our talent management aims to give employees with distinct potential long-term development opportunities at the company and to prepare them to take on positions with much more complex tasks and increased responsibilities. In 2021, employees could nominate themselves for the first time and were then selected by an international, cross-functional jury. In this way, a diverse group of eight talented employees was identified without defining specifications. As part of the 18-month program, they developed individual development plans independently and under their own direction and took part in group-oriented measures. Once the program was successfully completed, we began the process of revising it in the reporting year so that we can offer an expanded program in the future.

The "Senior Leadership Program", designed to promote a culture of leadership and cross-divisional global collaboration, is aimed at middle-management executives from all departments. The program includes various aspects of leadership topics, which are imparted through individual coaching and serve to promote entrepreneurial thinking and action with a focus on strategic management. We work to ensure that the composition of these programs is at least representative of the proportion of women in the company as a whole. Here, we also started the process of revising this format in the reporting year.

Following a pilot phase at the headquarters in Germany that was successfully completed in 2021, we internationalized the "Working Out Loud" (WOL) learning program, which aims to improve and develop networking skills, in the reporting year and rolled it out to the SMA group companies in the EMEA and APAC regions. Participants in the program team up in circles for twelve weeks and formulate individual targets that can be achieved by networking with the relevant people, communities and networks. The participants and Circles work completely self-organized.

New work²

With the topic of "new work," we are particularly supporting initiatives of committed employees, continuously developing working environments that promote agile working practices in changing project teams, and establishing self-organized teams to align the organization in a role-based and self-organized manner. Agility is an attitude that is intrinsically linked with the modern working world, as previous problem-solving mechanisms no longer work due to increasing complexity and requirements. The SMA group actively supports this with a central department that assists with agile transformation as a whole and in individual areas and departments. By means of internal networking, coaching, training and support with organizational development projects, these experts enable the organization to deal with growing complexity.

¹ The following section is not subject to the limited assurance engagement on the combined non-financial statement.

² The following section is not subject to the limited assurance engagement on the combined non-financial statement.

To enable such changes to take place successfully in the interests of the SMA group's future viability, the employer and the employee representatives have concluded a general agreement determining a shared understanding and an open approach to "New work." In this context, temporary employer/works council agreements are being drawn up, for example, to increase the speed at which the company adapts and to allow adjustments to be made repeatedly where necessary in line with the developing requirements.

The extremely quick and flexible switch to mobile and virtual collaboration, with which we successfully met the particular challenges posed by the coronavirus pandemic, has shown that the SMA group is already operating at a very high level. To also take advantage of the potential for collaboration from any location after the pandemic, global guidelines for mobile working have been developed. On this basis, a corresponding employer/works council agreement has also been concluded for the headquarters in Niestetal/Kassel, Germany, in 2021. In this way, we created attractive conditions for our employees to work independently and flexibly in a way that meets their needs, while motivating them to take responsibility for their own individual learning and knowledge sharing. During the reporting year, we trialed new forms of hybrid teamworking and flexible working models. Several pilot groups accepted the offer of working with an external consultant to create a customized framework for hybrid work within their teams. Furthermore, at the headquarters in Niestetal/Kassel, Germany, and a few other group companies, we have started aligning our office concept and the technical equipment in the designated office spaces to the special requirements of hybrid working.

To drive forward with even greater vigor the strategic transformation within the company and self-organized working in teams, we further strengthened our use of the Loop Approach® in the SMA group during the reporting year. This approach empowers our employees to tackle increasingly complex topics and issues successfully in changing teams with the help of new perspectives and ways of working.

Our employees can also contribute their ideas within the framework of the SMA KICKBOX, allowing them to play a part in the sustainable development of their company. In addition to boosting capacity for innovation, the SMA KICKBOX also has a positive impact on innovation culture and encourages motivation, identification and innovation expertise. The SMA KICKBOX provides step-by-step guidance – including materials – on how to find ideas and assess customer and market acceptance for them. The focus here is on ideas for new products, solutions, services and business models. Over a ten-week period, participants are guided through the five phases of the SMA KICKBOX by a team of professionals from Future Business & Innovation Management using tried-and-trusted innovation management methods.

Corporate citizenship

Democratic values such as openness, respect and tolerance are extremely important to us. For this reason, the SMA group has joined with other companies, institutions, societies and industry associations in the „Offen für Vielfalt – geschlossen gegen Ausgrenzung“ (Open to diversity – Closed to exclusion) initiative in Kassel and northern Hesse to promote diversity in all dimensions and stand up against the exclusion of people in society and the working world. We are also involved in the "Erfolgsfaktor Familie" (Success Factor Family) initiative of the German Federal Ministry for Family Affairs, which encourages companies to be more family-friendly.

The traditional Christmas donation by SMA employees is used to support projects and initiatives that help disadvantaged children and young people via the fund-raising organization A.M.S. e. V. In the reporting year, employees were again given the opportunity to donate overtime and vacation days in addition to money. In total, donations amounting to approximately €49,000 were collected from the employees in 2022. This amount was supplemented by the Managing Board with a corporate contribution of around €11,000. In 2022, we also supported FutureSpace Kassel by donating an inverter worth €733. We donated seventeen bicycles that had been used for commuting between buildings at the headquarters in Niestetal/Kassel, Germany, to the Caritas association in northern Hesse. The association will have them refurbished in a bicycle repair shop and then give them to refugees, immigrants and other people in need.

The Managing Board of SMA Solar Technology AG condemns the Russian government's war of aggression on Ukraine, prompting it to financially sponsor initiatives that aim to support Ukrainian citizens in 2022. In a joint project with other companies in the solar industry, we provided a solar-powered emergency power supply system for a school in the western Ukraine city of Irpin by a donation of inverters worth around €17,545. As part of an initiative by local companies, we also donated €1,500 for Ukrainian students at the University of Kassel. We also sponsored a table tennis tournament with some famous names organized by the local "Jumpers e.V." initiative in support of Ukrainian children who have fled their country, giving a donation of €5,000.

Sustainability key figures of the SMA group¹

TARGET-RELATED KEY FIGURES

Target	Unit	2021	2022	Target value	Target year	Comments
Environment & energy						
100% electricity from renewable energies ¹	%	98.0	97.5	100	2025	
100% climate neutrality ²	%	96.1	95.1	100	2025	
50% less CO ₂ e emissions in kg/kW of inverter output produced ¹	kg/kW	0.057	0.072	0.084	2025	The target value for 2025 has been achieved since 2020.
30% less product weight in kg/kW of inverter output produced	kg/kW	1.43	1.40	1.49	2025	The target value for 2025 has been achieved since 2020.
25% reduction of the ratio of production rejects to product output ³	kg production rejects/t product	0.94	0.84	1.1	2025	The target value for 2025 was achieved in 2022.
25% less waste per € million of sales ⁴	t/€ million	2.10	1.94	1.63	2025	In 2022, we adjusted the target and decided to use a monetary benchmark.
Product stewardship						
1.0% field failure rate	%	1.7	1.5	1.0	2025	
Employees						
100% coverage of SMA group companies by a risk and monitoring system for labor standards	%	0	38	100	2025	The target was adopted in 2022.
Global lost time incident rate of ≤0.8 ⁵	LTIR	0.83	0.96	≤0.8	2025	The target was adjusted in 2022 and extended to all significant SMA locations.
Review of 100% of workplaces in the operating areas at the headquarters for age-stability	%	64.0	72.8	100	2025	
70% age-stable workplaces in operating areas at the headquarters ⁶	%	56.4	73.9	70	2025	
26% women in the workforce as a whole	%	24.7	26.4	26	2025	The target value for 2025 was achieved in 2022.
25% women in professional positions	%	21.8	24.2	25	2025	
19% women in executive positions	%	17.0	18.0	19	2025	
Governance & ethical business						
Sustainability performance assessment covering 100% of suppliers ⁷	%	46.4	50.0	100	2025	
55% overall assessment for suppliers' sustainability performance ⁸	%	54.1	56.5	55	2025	

¹ Applies to SMA locations covering 400 m² or more

² Market-based approach, after offsets; includes electricity and heating at locations covering 400 m² or more

³ Applies to production in Germany

⁴ Applies to operating divisions in Niestetal/Kassel, Germany

⁵ Applies to SMA locations covering 400 m² or more; average across all locations

⁶ The percentage in each case relates to the jobs already assessed at the end of the respective fiscal year.

⁷ The percentage in each case relates to all A and B suppliers in place at the end of the respective fiscal year.

⁸ The assessment in each case relates to the A and B suppliers already covered by a sustainability assessment.

¹ For the scope of the sustainability key figures in the individual areas of action and aspects, please see section "Reporting boundaries" at the beginning of the combined non-financial statement.

AREA OF ACTION: GOVERNANCE & ETHICAL BUSINESS

		2022	2021
Companies assessed for risks of corruption ¹	Number	20	21
Companies assessed for risks of corruption	%	95	100
Anti-corruption training	Employees ²	1,610	124
Anti-corruption training	%	44.3	3.5
Confirmed cases of corruption		0	0

¹ Companies of the SMA group with active business operations

² Employees, trainees and learners, excluding temporary employees; the previous year's figures have been adjusted due to a change in the calculation method.

AREA OF ACTION: PRODUCT STEWARDSHIP

		2022	2021
Research and development expenses	€ million	86.8	77.7
Research and development ratio in relation to sales	%	8.1	7.9

AREA OF ACTION: ENVIRONMENT & ENERGY¹

		2022	2021
General key figures			
Sales	€ million	1,066	983
Inverter output produced	MW	8,380	10,258
Total weight of inverters produced	t	11,706	14,632
Energy			
Power consumption	GWh	20.78	20.46
of which self-produced solar power	GWh	2.71	2.41
District heating	GWh	3.64	3.78
Natural gas	GWh	4.13	4.66
Diesel fuel	GWh	3.11	2.67
Gasoline	GWh	2.89	2.78
Other fuels	GWh	0.03	0.01
Total energy consumption	GWh	34.59	34.37
Solar power sold	GWh	5.25	4.56
Energy intensity (Niestetal/Kassel location)	kWh/kW	3.14	2.64
Energy intensity SMA group	kWh/kW	4.13	3.35
Climate protection^{1,2} (greenhouse gas emissions in CO₂e)			
Scope 1	t	2444.75	2422.89
Scope 2	t	368.11	352.82
Scope 1 + Scope 2	t	2,812.86	2,775.71
Compensation	t	596.23	776.10
Greenhouse gas emissions Scope 1 + Scope 2 after compensation	t	2,216.62	1,999.61
Specific greenhouse gas emissions Scope 1 + Scope 2	t/€ million	2.08	2.03
Greenhouse gas emissions Scope 3	t	600,792.73	564,826.17
Waste & recycling			
Hazardous waste	t	344.93	300.93
of which recycled	t	323.23	278.33
of which not recycled	t	21.69	22.60
Non-hazardous waste	t	2,070.75	2,112.20
of which recycled	t	1,876.86	1,951.43
of which not recycled	t	193.89	160.77
Total waste	t	2,415.67	2,413.13

¹ CO₂e emissions according to market-based approach. Scope 2 emissions in accordance with the location-based approach amounted to 9,667.94 metric tons of CO₂e (2021: 10,935.25 metric tons of CO₂e).

² In the course of calculating our Scope 3 emissions, we also worked with external consultants to perform a quality check of our reporting for Scope 1 and Scope 2 emissions. As a result, we adjusted our emission factors and methodology. The previous year's figures have been adjusted accordingly.

AREA OF ACTION: EMPLOYEES

		2022/12/31	2021/12/31
Employees SMA group (excl. Trainees, learners and temporary employees)		3,464	3,353
female		915	827
male		2,549	2,526
Employees EMEA		3,052	2,931
Employees Americas		265	275
Employees APAC		147	147
Full-time employees		3,162	3,089
female		709	646
male		2,453	2,443
Part-time employees		302	264
female		206	181
male		96	83
Employees with permanent contracts		3,217	3,090
female		837	745
male		2,380	2,345
Employees with fixed-term contracts		247	263
female		78	82
male		169	181
Trainees		66	63
Learners ¹		105	94
Temporary employees		479	226
Employee categories			
SMA group executives			
female	%	18.0	17.0
male	%	82.0	83.0
General Managers/Vice Presidents			
female	%	14.8	6.7
male	%	85.2	93.3
Directors			
female	%	14.3	16.0
male	%	85.7	84.0
Managing Board and Supervisory Board			
Managing Board			
female	%	50	0
male	%	50	100
Supervisory Board			
female	%	33.3	33.3
male	%	66.7	66.7

		2022	2021
Occupational safety			
Work-related accidents resulting in at least one day of absence		26	23
Serious work-related accidents		11	0
Fatal work-related accidents		0	0

¹ Student workers, auxilliary staff, interns and graduands

Key Performance Indicators EU-Taxonomy

Sales

SMA activity	Absolute sales in €'000	Proportion of sales in %	Substantial contribution to climate change mitigation in %	"Do no significant harm" (DNSH) criteria for further EU environmental objectives						Taxonomy-aligned proportion of sales 2022 in %	Taxonomy-aligned proportion of sales 2021 in %	Category enabling activity E/-	Category transitaional activity T/-
				Climate change adaptation yes/no	Sustainable use and protection of water and marine resources yes/no	Transition to a circular economy yes/no	Pollution prevention and control yes/no	Protection and restoration of biodiversity and ecosystems yes/no	Minimum safeguards yes/no				
A. Taxonomy-eligible activities													
A.1 Environmentally sustainable activities (taxonomy-aligned)	450,999	42.3								42.3			
3.1 Manufacture of renewable energy technologies	317,587	29.8	100.0	100.0	yes	yes	yes	yes	yes	29.8			
7.6 Installation, maintenance and repair of renewable energy technologies	133,412	12.5	100.0	100.0	yes	yes	yes	yes	yes	12.5			
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)	451,546	42.4											
3.1 Manufacture of renewable energy technologies	451,546	42.4											
7.6 Installation, maintenance and repair of renewable energy technologies	0	0.0											
Total (A.1 + A.2)	902,545	84.7											
B. Sales of taxonomy-non-eligible activities (B)	163,401	15.3											
Sales of non-environmentally sustainable activities	163,401	15.3											
Total (A+B)	1,065,946	100.0											

CapEx

SMA activity	Absolute CapEx in €'000	Proportion of CapEx in %	“Do no significant harm” (DNSH) criteria for further EU environmental objectives							Taxonomy-aligned proportion of CapEx 2022 in %	Taxonomy-aligned proportion of CapEx 2021 in %	Category enabling activity E/-	Category transitional activity T/-
			Substantial contribution to climate change mitigation in %	Climate change adaptation yes/no	Sustainable use and protection of water and marine resources yes/no	Transition to a circular economy yes/no	Pollution prevention and control yes/no	Protection and restoration of biodiversity and ecosystems yes/no	Minimum safeguards yes/no				
A. Taxonomy-eligible activities													
A.1 Environmentally sustainable activities (taxonomy-aligned)	20,686	31.5								31.5			
3.1 Manufacture of renewable energy technologies	17,796	27.1	100.0	yes	yes	yes	yes	yes	yes	27.1			
7.6 Installation, maintenance and repair of renewable energy technologies	2,890	4.4	100.0	yes	yes	yes	yes	yes	yes	4.4			
A.2 Taxonomy-eligible but not taxonomy-aligned activities	41,836	63.6											
3.1 Manufacture of renewable energy technologies	41,836	63.6											
7.6 Installation, maintenance and repair of renewable energy technologies	0	0.0											
Total (A.1 + A.2)	62,522	95.1											
B. Taxonomy-non-eligible activities	3,236	4.9											
CapEx from non-environmentally sustainable activities	3,236	4.9											
Total (A+B)	65,758	100.0											

OpEx

SMA activity	Absolute OpEx in €'000	Proportion of OpEx in %	“Do no significant harm” (DNSH) criteria for further EU environmental objectives							Taxonomy- aligned proportion of OpEx 2022 in %	Taxonomy- aligned proportion of OpEx 2021 in %	Category enabling activity E/-	Category transitional activity T/-
			Substantial contribution to climate change mitigation in %	Climate change adaptation yes/no	Sustainable use and protection of water and marine resources yes/no	Transition to a circular economy yes/no	Pollution prevention and control yes/no	Protection and restoration of biodiversity and ecosystems yes/no	Minimum Safeguards yes/no				
A. Taxonomy-eligible activities													
A.1 Environmentally sustainable activities (taxonomy-aligned)	15,270	35.1								35.1			
3.1 Manufacture of renewable energy technologies	12,891	29.7	100.0	yes	yes	yes	yes	yes	yes	29.7			
7.6 Installation, maintenance and repair of renewable energy technologies	2,379	5.5	100.0	yes	yes	yes	yes	yes	yes	5.5			
A.2 Taxonomy-eligible but not taxonomy-aligned activities	26,706	61.5											
3.1 Manufacture of renewable energy technologies	26,706	61.5											
7.6 Installation, maintenance and repair of renewable energy technologies	0	0.0											
Total (A.1 + A.2)	41,976	96.6											
B. Taxonomy-non-eligible activities	1,481	3.4											
OpEx from non-environmentally sustainable activities	1,481	3.4											
Total (A+B)	43,457	100.0											

GRI Index

Statement of use: SMA Solar Technology AG has reported the information cited in this GRI content index for the period from January 1, 2022, to December 31, 2022, with reference to the GRI Standards.

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FISCAL YEAR 2022

General economic conditions and economic conditions in the sector

General economic conditions

In 2022, the global economy was particularly heavily impacted by the war in Ukraine, high inflation and rising interest rates, as well as the negative consequences from the coronavirus pandemic, such as disrupted supply chains. As a result, the global economy slowed down across the board and more sharply than expected.

According to the International Monetary Fund (IMF), global economic growth fell from 6.1% in 2021 to 3.4% in 2022.

According to the IMF experts, economic output in industrialized countries increased by only 2.7% in 2022, after growing by 5.2% in the previous year. The eurozone recorded a decline to 3.5% (2021: 5.2%). In the U.S., gross domestic product decreased to 2.0% (2021: 5.7%).

As stated by the IMF, the economic output of developing and newly industrialized countries fell to 3.9% in the reporting period (2021: 6.6%). China recorded the sharpest decrease with 3.0% (2021: 8.1%). This was due to the strict coronavirus policy, which placed considerable strain on the Chinese economy in 2022, as well as the ongoing crisis in the real estate sector.

Economic conditions in the sector¹

Photovoltaics is now one of the most cost-effective energy sources in most regions of the world. For example, large-scale solar projects in the Middle East are already generating solar power at less than \$0.02 per kWh. This points the way to an environment in which the industry continues to grow, even from a purely commercial point of view. In the wake of the transformation of global energy supply structures, current and future objectives include offering holistic solutions, intelligently interlinking different technologies, providing intermediate storage and management solutions for generated energy, and integrating users into the energy market. This is the basis for ensuring a reliable and cost-effective electricity supply from renewable energies.

GLOBAL PV MARKET CONTINUES TO GROW

Based on newly installed PV power of around 192 GW to 200 GW (2021: 162 GW), according to SMA's estimates, the global photovoltaic market was again clearly above the previous year's level in 2022. (The installation figures do not include retrofitting of existing PV systems with new inverters or battery inverter technology.) SMA estimates that global PV inverter technology sales, including inverter retrofitting and battery inverter technology, increased to approximately €9.2 billion to €10.0 billion in 2022 (2021: €8.1 billion).

In the photovoltaic markets in Europe, the Middle East and Africa (EMEA), SMA estimates that inverter technology sales were significantly higher than in the previous year at around €2.9 billion to €3.1 billion (2021: €2.4 billion). Accordingly, the share of the EMEA region in global sales rose to 31% (2021: 30%). SMA estimates that system technology for storage applications and the retrofitting of existing PV systems accounted for a significant portion of sales in the EMEA region at approximately 14%.

¹ The estimated values in the following section are not a mandatory component of the combined management report as defined in Sections 289, 315 HGB in conjunction with GAS 20, and therefore not a subject of the financial audit.

According to SMA estimates, investments in North and South America (Americas) also grew slightly to about €2.6 billion to €2.8 billion (2021: €2.6 billion). The region thus accounted for around 28% of global inverter technology sales (2021: 32%). The Chinese PV market recorded a distinct increase. SMA estimates that, with an investment volume of approximately €2.0 billion to €2.2 billion, China accounted for around 22% of global sales in the reporting period (2021: €1.4 billion; 18%). According to SMA estimates, the Asia-Pacific photovoltaic markets (excluding China) were up year on year with sales of around €1.7 billion to €1.9 billion, accounting for around 19% of the global market (2021: €1.6 billion; 20%).

EMEA: GERMANY IS MOST IMPORTANT MARKET AGAIN

In the EMEA (Europe, Middle East and Africa) region, SMA estimates that newly installed PV power was clearly above previous year's level with approximately 45 GW to 47 GW in 2022 (2021: 39 GW). Germany grew above average in 2022 and, as in the previous year, was one of the most significant markets in Europe with more than 7.0 GW of newly registered PV power (2021: 5.3 GW). Almost all other European countries also recorded an increase in newly installed PV power in 2022.

AMERICAS: U.S. MARKET WEAKER THAN IN PREVIOUS YEAR

According to SMA estimates, PV installations in the U.S. market dropped to between approximately 17 GW and 19 GW in the reporting year (2021: 23 GW). Newly installed PV power in the North and South American (Americas) region came to an estimated total of approximately 31 GW to 33 GW in the reporting period (2021: 35 GW).

APAC: STRONG GROWTH IN INDIA

According to SMA estimates, new PV installations in the Asia-Pacific region (APAC), excluding China, increased to about 37 GW to 39 GW (2021: 33 GW). In China, new installations grew by approximately 45% to around 79 GW to 81 GW (2021: 55 GW). Among the PV markets in the APAC region (excluding China), India recorded particularly strong growth with new PV installations rising to more than 15 GW (2021: 11 GW). This was attributable to a high rate of installations of bigger PV rooftop systems and of ground-based PV systems.

Results of operations

Sales and earnings

SIGNIFICANT INCREASE IN SALES AND EARNINGS

In the reporting period, the SMA group sold PV inverters with accumulated power of 12,225 MW, putting output sold 10% lower than in the previous year (2021: 13,584 MW). Fewer units were sold in the Large Scale & Project Solutions segment year on year as a result of project delays, whereas sales in the Home Solutions and Commercial & Industrial Solutions segments increased. The SMA group's sales increased by 8.4% to €1,065.9 million in the reporting period (2021: €983.4 million). The sales growth is a result of the improved supply situation for electronic components and the implementation of price increases. This trend toward a gradually easing supply situation positively impacted the development of sales in the fourth quarter and thus exceeded the Managing Board's sales forecast.

The SMA group is well positioned internationally and generates sales in all relevant regions. In the reporting period, 63.4% of external sales calculated before sales deductions were generated in Europe, the Middle East and Africa (EMEA), 23.9% in the North and South America (Americas) region and 12.7% in the Asia-Pacific (APAC) region (2021: 50.5% EMEA, 31.4% Americas, 18.1% APAC). The main markets for the SMA group in the reporting period were again Germany, the U.S. and Australia.

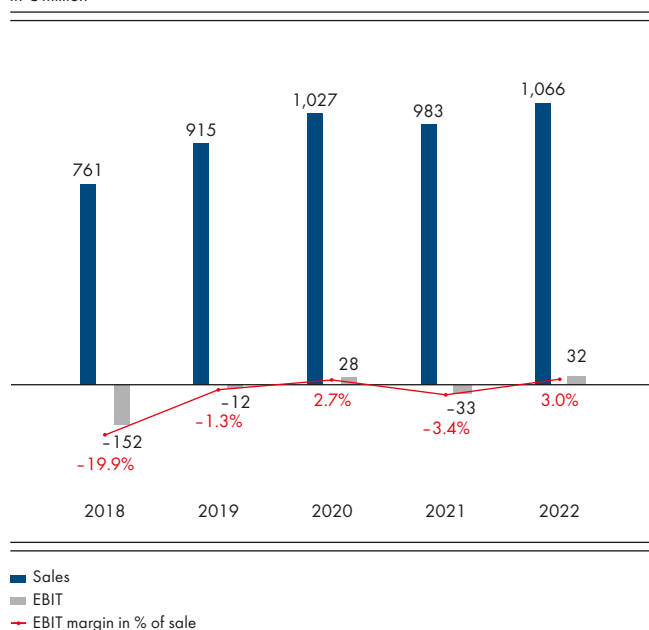
The Large Scale & Project Solutions segment again made the largest contribution to sales in 2022, accounting for 41.4% (2021: 48.1%). The Home Solutions segment generated 31.4% of the SMA group's sales, while the Commercial & Industrial Solutions segment generated 27.2% (2021: 27.0% Home Solutions, 24.9% C&I Solutions).

The SMA group increased its order backlog again to €2,077.4 million as of December 31, 2022 (December 31, 2021: €886.6 million). Of this amount, €1,700.7 million was attributable to product business. This means that the product-related order backlog has more than quadrupled year on year (December 31, 2021: €408.8 million). €376.7 million of the order backlog was attributable to service business (December 31, 2021: €477.8 million). The previous year's figure still included an order backlog in the high double-digit million range that was cancelled in the course of the termination of a long-term contract for operation and maintenance (O&M) services for PV power plants in the 2022 fiscal year. The order backlog in the service business is realized in particular from extended warranties against payment over a period of five to ten years.

In the 2022 fiscal year, earnings before interest, income taxes, depreciation and amortization (EBITDA) increased to €70.0 million (EBITDA margin: 6.6%; 2021: €8.5 million; 0.9%). Earnings before interest and taxes (EBIT) came to €31.9 million (2021: –€33.2 million). Earnings in the previous year were impacted by a negative one-time item resulting from termination of a long-term contract for operation and maintenance (O&M) services for PV power plants. The EBIT margin accordingly rose to 3.0% (2021: –3.4%). Net income was €55.8 million (2021: –€23.2 million), earnings per share could thus be increased to €1.61 (2021: –€0.67).

Sales and EBIT

in € million



Sales and earnings per segment

HOME SOLUTIONS SEGMENT SIGNIFICANTLY INCREASES PROFITABILITY AND SALES

In the Home Solutions segment, the SMA group caters to global markets for small PV systems with and without storage systems and connections to a smart home solution. The SMA Energy System Home is an end-to-end, single-source system package featuring all the hardware, software and service components required for an independent household electricity supply. It comprises single- and

three-phase string inverters with power of up to 12 kW, integrated services, storage systems and charging solutions for electric vehicles. Communication products and accessories, services, such as extended warranties, spare parts, modernization of PV systems (Repowering) to enhance performance and digital energy services complete the offering.

External sales in the Home Solutions segment were up significantly by 26.2% year on year at €335.0 million in 2022 (2021: €265.4 million). Its share of the SMA group's total sales was 31.4% (2021: 27.0%). At 86.7% (2021: 81.1%), the EMEA region accounted for the noticeably largest share of gross sales in the Home Solutions segment. 8.3% were attributable to the Americas region (2021: 10.9%) and 5.0% to the APAC region (2021: 8.0%).

Operating earnings before interest and taxes (EBIT) in the Home Solutions segment improved to €53.8 million (2021: €37.6 million) due to the increase in sales driven by the improved delivery situation and the implementation of price increases. In relation to external sales, the EBIT margin was at a high level of 16.1% (2021: 14.2%). In the Home Solutions segment, the improved delivery situation was particularly noticeable in a strong fourth quarter.

COMMERCIAL & INDUSTRIAL SOLUTIONS SEGMENT SIGNIFICANTLY INCREASES SALES

In the Commercial & Industrial Solutions segment, the focus is on global markets for medium-sized PV systems with and without energy management, battery storage and electric vehicle charging solutions. SMA Energy System Business, featuring matched hardware, software, tools and services, gives small and medium-sized commercial enterprises and the housing sector the option of producing, storing and selling solar power themselves. The application shows the companies' energy flows in a transparent way and thus contributes to cost savings. It comprises three-phase inverters, storage solutions and holistic energy management solutions for smaller and medium-sized PV systems. Solutions for charging management and billing of electric vehicle fleets complete the offering. Additionally, the SMA group offers services up to and including system modernization and operational management of commercial PV systems (O&M business) as well as digital services.

External sales in the Commercial & Industrial Solutions segment rose by 18.3% year on year to €290.3 million in 2022 (2021: €245.4 million). The positive development in the supply of electronic components, particularly in the increase in sales in the fourth quarter, also made an impact in this respect. Its share of the SMA group's total sales was 27.2% in the reporting period (2021: 24.9%). 79.4% of gross sales were attributable to the EMEA region, 11.5% to the Americas region and 9.1% to the APAC region (2021: 71.5% EMEA, 16.1% Americas, 12.4% APAC).

Earnings before interest and taxes (EBIT) amounted to –€26.0 million (2021: –€18.0 million). In relation to external sales, the EBIT margin was –9.0% (2021: –7.3%). The higher procurement prices, particularly for materials purchased at short notice on futures exchanges, could not be passed on here to the same extent as in the Home Solutions segment. Furthermore, the improved second half of the year could only partially compensate for the weak margins of the first half.

LARGE SCALE & PROJECT SOLUTIONS SEGMENT AFFECTED BY PROJECT DELAYS

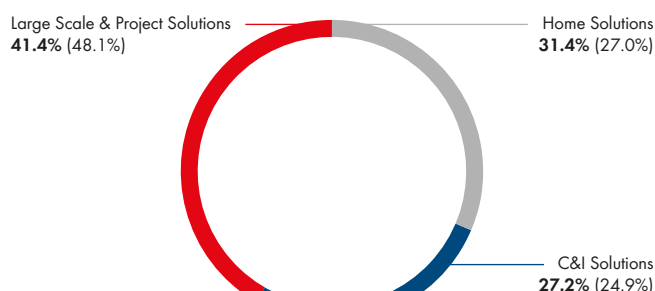
The Large Scale & Project Solutions segment focuses on complete solutions on international PV power plant markets that perform grid service and monitoring functions on the basis of central inverters and system controllers. The outputs of string and central inverters in this segment range from 100 kW to the megawatts. Another focus is on storage solutions for large-scale PV and storage power plants and on solutions for the hydrogen production. The portfolio is supplemented by services, for example, for the modernization and functional enhancement of PV power plants (Repowering), and operation and maintenance services (O&M business). In addition, the SMA group implements large-scale storage projects in this segment worldwide.

External sales in the Large Scale & Project Solutions segment were down 6.8% year on year at €440.6 million in the reporting period (2021: €472.6 million). This is due primarily to project delays as a result of the U.S. antidumping policy toward Chinese module manufacturers in the first half of 2022. This situation eased in the fourth quarter. This trend is expected to continue in the first quarter of 2023. Its share of the SMA group's total sales was 41.4% (2021: 48.1%). The Large Scale & Project Solutions segment thus again accounted for the largest share of the SMA group's total sales. The Americas region accounted for 45.3% (2021: 51.8%) of the segment's gross sales, the APAC region for 21.5% (2021: 27.1%) and the EMEA region for 33.2% (2021: 21.1%).

Earnings before interest and taxes (EBIT) in the Large Scale & Project Solutions segment amounted to –€13.5 million (2021: –€62.8 million). The improvement in earnings was attributable mainly to the fact that previous year's earnings were impacted by a negative one-time item in the 2021 fiscal year resulting from the termination of a long-term contract for operation and maintenance (O&M) services for PV power plants. In relation to external sales, the EBIT margin was –3.1% (2021: –13.3%).

Sales by segments ¹

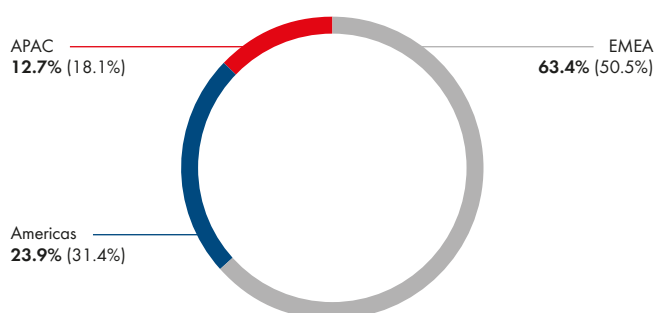
in %



¹ Gross sales before sales deductions (previous year's figures in parentheses)

Sales by regions ¹

in %



¹ Gross sales before sales deductions (previous year's figures in parentheses)

Development of significant income statement items

GROSS MARGIN INCREASED SIGNIFICANTLY

The cost of sales amounted to €841.7 million in the reporting period (2021: €808.2 million). At 21.0% (2021: 17.8%), the gross margin was up year on year, particularly driven by the profitability in the Home Solutions segment. The gross margin for the previous year was also negatively influenced by the aforementioned one-time item in the Large Scale & Project Solutions segment in the form of a revenue reduction amounting to €10.9 million.

Personnel expenses included in cost of sales increased by 14.6% year on year to €134.9 million (2021: €117.6 million). In addition to the expansion of the workforce as part of the strategic alignment, pay increases and higher performance-related variable remuneration, the recognition of a provision for a one-time payment had a noticeable effect in this respect. Due to the increased sales volume and higher procurement prices, material expenses rose to €642.9 million (2021: €610.2 million). The SMA group is continuously working on the product portfolio in all segments to tackle price pressure by optimizing the cost of existing products and introducing new and less expensive products.

Depreciation and amortization included in the cost of sales amounted to €32.3 million in 2022 (2021: €35.7 million). This includes scheduled depreciation on capitalized development costs of €6.9 million (2021: €8.8 million). Other costs decreased by 29.3% year on year to €31.6 million (2021: €44.7 million). This was attributable to a lower addition to the specific warranty provisions compared to the previous year.

Selling expenses rose to €102.2 million in 2022 (2021: €85.4 million). In addition to the implementation of a reorganization program as part of the strategic alignment, expansion of the workforce, pay increases and higher performance-related variable remuneration, this is attributable to the recognition of a provision for a one-time payment. Furthermore, costs increased due to the resumption of trade fair activities following the acute phase of the coronavirus pandemic. The cost of sales ratio was 9.6% in the reporting period (2021: 8.7%).

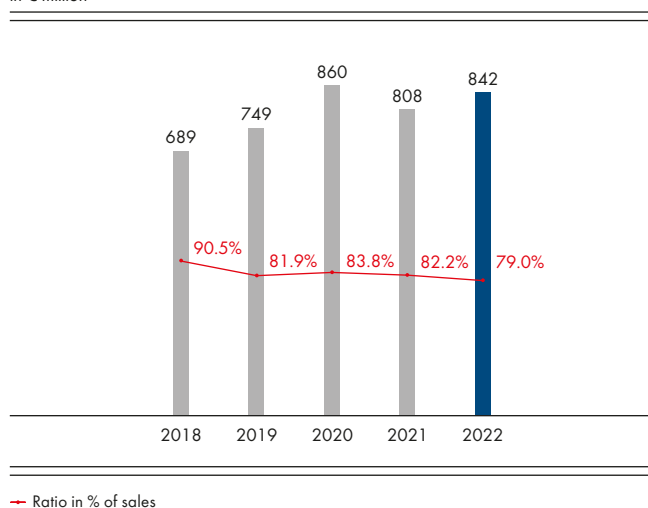
Research and development expenses after deducting capitalized development costs amounted to €51.6 million in the 2022 fiscal year (2021: €50.2 million). Total research and development expenses, including capitalized development projects, amounted to €86.8 million (2021: €77.7 million). The research and development cost ratio came to 8.1% in the 2022 fiscal year (2021: 7.9%). In addition to the expansion of the workforce as part of the strategic alignment, pay increases and higher performance-related variable remuneration, the recognition of a provision for a one-time payment had a noticeable effect in this respect. Development costs were capitalized in the amount of €35.2 million in the reporting period (2021: €27.4 million). The increase in capitalizations can be attributed to several projects that are at an advanced stage of development.

General administrative expenses increased to €64.0 million in 2022 (2021: €50.4 million). Increased costs from the expansion of the workforce as part of the strategic alignment, pay increases, increased performance-related variable remuneration and the recognition of a provision for a one-time payment also had an impact in this respect. The ratio of administrative expenses amounted to 6.0% in the reporting period (2021: 5.1%).

The balance of other operating income and expenses resulted in a positive effect on earnings of €25.4 million in the reporting period (2021: –€22.4 million). The previous year's figure was negatively influenced by the termination of a long-term contract for operation and maintenance (O&M) services for PV power plants. This was offset during the fiscal year thanks to a positive effect from the sale of two administrative buildings, including land and associated PV systems, to an investor. These had been leased since 2016, and the proceeds from the sale after deduction of all costs amounted to €23.2 million. Income of €28.6 million (2021: €19.1 million) and expenses of €37.9 million (2021: €21.4 million) from foreign currency valuation and hedging are also included. This also comprises expenses and revenue from the rental of own buildings, for financial assets measured at fair value through profit or loss, as well as expenses from the recognition and income from the reversal of specific valuation allowances on receivables.

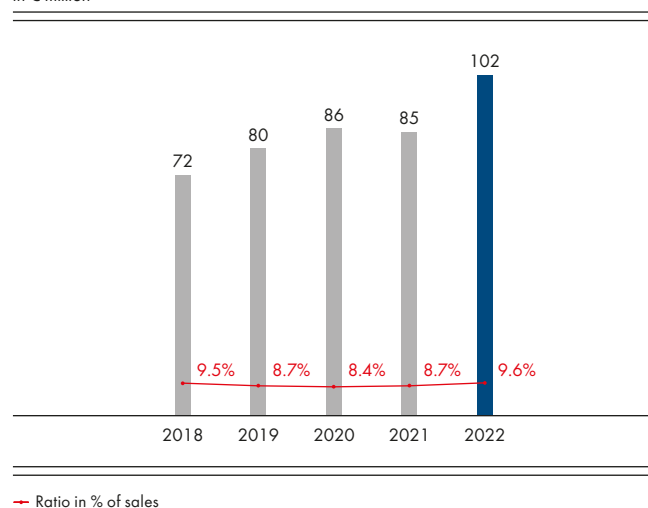
Cost of sales

in € million



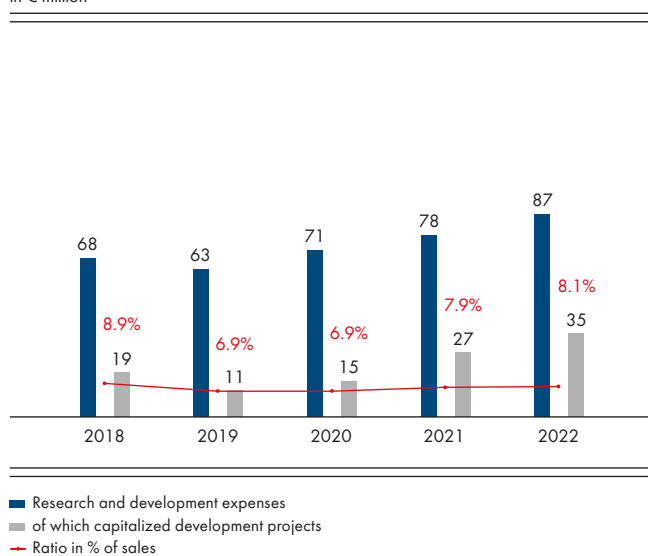
Selling expenses

in € million



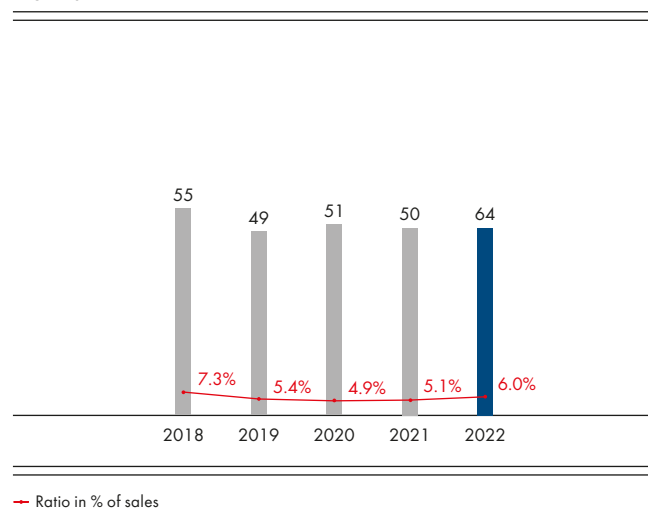
Research and development expenses

in € million



Administrative expenses

in € million



FINANCIAL RESULT AND TAXES

The financial result amounted to €3.0 million in 2022 (2021: –€0.7 million) and was attributable mainly to the discounting of provisions. Taxes are mainly influenced by the recognition of deferred tax assets on loss carryforwards and temporary differences. Compared with the previous year, deferred tax assets in this regard increased by €25.2 million due to the positive planning.

Multi-period overview of results of operations

in %	2022	2021	2020	2019	2018
EBIT margin	3.0	–3.4	2.7	–1.3	–19.9
EBITDA margin	6.6	0.9	7.0	3.7	–9.1
EBT margin (return on sales)	3.3	–3.4	2.6	–1.2	–21.9
Return on equity after taxes	12.8	–5.5	6.6	–2.1	–33.9
Return on assets (after taxes)	5.2	–2.2	2.6	–0.8	–15.9

Financial position

Principles and objectives of financial management

The group's holdings of cash and cash equivalents are managed and invested centrally by Global Treasury. The decision is based not only on returns but also on the credit rating of the bank partner. In the case of supplier credits granted, counterparty risk is monitored continuously. The decision is primarily based on the customer's payment practices and financial circumstances. To cover potential payment defaults, the SMA group has also taken out commercial credit insurance.

We systematically recognize market risks – above all currency risks – that might jeopardize the operating results and preclude such risks through hedging operations, provided this is economically expedient.

Financing analysis

In 2016, the SMA group agreed upon a long-term credit line of €100.0 million with three domestic banks, which was successfully renegotiated in 2021. In addition, there are still other guarantee credit lines amounting to €3.9 million. At the end of 2022, 28.1% of the total credit lines available (amounting to €103.9 million) were utilized in the form of guarantee credits.

In total, financial liabilities decreased by €23.0 million from €46.7 million as of the end of 2021 to €23.7 million as of the end of 2022. This change is due to the early repayment of financial liabilities to banks amounting to €8.3 million and to the offsetting of forward transactions for currency derivatives amounting to €7.6 million. IFRS 16 lease liabilities reduced by €7.1 million.

Liquidity analysis

GROSS CASH FLOW AT A GOOD LEVEL

Gross cash flow reflects operating income prior to commitment of funds. It amounted to €32.6 million in the 2022 fiscal year (December 31, 2021: €84.4 million). It includes the net effect before attributable costs of €24.9 million from the sale of buildings previously leased, including PV systems.

In the reporting year, net cash flow from operating activities was €28.7 million (2021: €94.3 million). SMA also increased its investments in inventories at the end of the 2022 fiscal year in order to guarantee delivery capacity for the expected and already agreed customer projects. In this context, liabilities from advance payments received also increased by €66.0 million year on year. In the previous year, cash flow from operating activities was positively influenced by the cash receipt of a compensation claim against a supplier and an early one-time payment (earn-out).

Inventories remained at a high level. They increased by 13.1% year on year to €308.7 million (December 31, 2021: €273.0 million). In view of the ongoing shortage of materials, the SMA group is continuing to pursue an intensified stockpiling strategy. The unchanged level of trade payables together with the increase in trade receivables due to the high level of sales at the end of the year resulted in a significant reduction in working capital by €19.0 million to €238.5 million (December 31, 2021: €257.5 million). The working capital ratio in relation to sales over the past 12 months dropped to 22.4% (December 31, 2021: 26.2%) and was therefore well below the range of 26% to 28% forecasted by the Managing Board.

Net cash flow from investing activities amounted to €42.5 million in the reporting period after –€81.6 million in the previous year. It includes cash inflows from the sale of buildings previously leased. The outflow of funds for investments in fixed assets and intangible assets amounted to €61.8 million in the reporting period (December 31, 2021: €47.5 million). With €35.2 million (December 31, 2021: €27.4 million), a large part of the investments was attributable to capitalized development projects. The balance of cash inflows and outflows from financial investments was €66.6 million (December 31, 2021: –€33.6 million).

Net cash flow from financing activities amounted to –€19.3 million (2021: –€20.8 million). This figure included payments for the early repayment of financial liabilities to banks of €8.3 million and lease liabilities amounting to €11.0 million.

As of December 31, 2022, cash and cash equivalents totaling €165.4 million (December 31, 2021: €114.0 million) included cash on hand, bank balances and short-term deposits with an original term to maturity of less than three months. Together with time deposits that have a term to maturity of more than three months, fixed-interest-bearing securities, liquid assets pledged as collateral, and after deducting interest-bearing financial liabilities to banks, this resulted in net cash of €220.1 million (December 31, 2021: €221.7 million). Total cash also came to €220.1 million (December 31, 2021: €230.0 million).

Multi-period overview of SMA group financial position

in € million	2022	2021*	2020	2019	2018
Equity	463.5	408.0	439.1	416.9	424.5
Equity ratio in %	41.8	38.7	41.8	37.6	42.9
Non-current liabilities	264.3	293.5	270.5	259.3	244.5
Current liabilities	382.2	352.2	341.6	431.1	320.3
Share of non-current provisions in total assets in %	8.4	9.9	8.0	6.8	6.6
Financial liabilities	23.7	46.7	41.1	34.5	20.4
Net cash	220.1	221.7	226.0	303.0	305.5
Net working capital	238.5	257.5	210.6	159.5	177.4
Net cash flow from operating activities	28.7	94.3	–31.4	–1.2	–54.3
Net cash flow from investing activities	42.5	–81.6	–36.5	83.1	7.4
Net cash flow from financing activities	–19.3	–20.8	–12.4	–10.7	–14.5

* The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2)

Investment analysis

In the 2022 fiscal year, investments in fixed assets and intangible assets that affected the statement of cash flows amounted to €61.8 million and were thus clearly above the previous year's figure of €47.5 million. This equates to an investment ratio in relation to sales of 5.8% compared with 4.8% in the previous year. Including additions of rights of use under leases, investments amounted to €65.8 million (2021: €56.4 million).

In total, €25.9 million was invested in fixed assets (2021: €17.6 million), primarily for technical equipment and machinery. The investment ratio for fixed assets was 2.4% in relation to sales in the fiscal year (2021: 1.8%). Depreciation of fixed assets, including depreciation of rights of use under leases, decreased to €28.7 million year on year (2021: €29.2 million). Investment obligations of €8.5 million exist for fixed assets and €5.9 million for intangible assets.

Investments in intangible assets amounted to €35.9 million (2021: €29.9 million). These largely related to capitalized development projects. Amortization of intangible assets totaled €9.3 million and was thus below the previous year's figure of €11.5 million.

Investments compared to depreciation and net cash flow from operating activities

in € million	2022	2021	2020	2019	2018
Net cash flow from operating activities	28.7	94.3	–31.4	–1.2	–54.3
Capital expenditure ¹	61.8	47.5	38.8	27.6	40.3
Depreciation and amortization	38.1	41.7	43.6	46.0	82.6

¹ See Notes, sections 9 and 10

Net assets

SMA group posts stable equity ratio

Total assets amounted to €1,110.0 million as of December 31, 2022, and increased year on year (December 31, 2021: €1,053.7 million). At €386.8 million, non-current assets were also above the previous year's level (December 31, 2021: €334.3 million).

Net working capital decreased to €238.5 million (December 31, 2021: €257.5 million), corresponding to 22.4% of sales over the past 12 months (December 31, 2021: 26.2%). As of the end of the fiscal year, trade receivables rose by 7.6% compared to December 31, 2021, to €153.5 million (December 31, 2021: €142.7 million). Days sales outstanding came to 50.7 days and were slightly higher than in the previous year (December 31, 2021: 49.1 days). Inventory remained at a high level and increased by 13.1% year on year to €308.7 million (December 31, 2021: €273.0 million). Trade payables decreased by 0.4% to €133.4 million (December 31, 2021: €134.0 million). The share of trade credit in total assets fell to 12.0% (December 31, 2021: 12.7%). Days payable outstanding was lower than in the previous year at 45.7 days (December 31, 2021: 49.7 days).

Most of the provisions set aside by the SMA group are for warranty obligations from various product families. In addition, provisions for anticipated losses were recognized in the 2021 fiscal year for the expected expenses from the termination of a long-term contract for operation and maintenance services in North America. At the end of the 2022 fiscal year, these totaled €24.0 million (December 31, 2021: €47.4 million).

Mainly as a result of the good net income, the SMA group's equity capital base increased to €463.5 million (December 31, 2021: €408.0 million). With an equity ratio of 41.8% (December 31, 2021: 38.7%), the SMA group continues to have a solid equity capital base.

Importance of off-balance sheet financing instruments

The SMA group is not involved in off-balance sheet transactions that might have a significant impact on its financial position, net assets or results of operations.

Multi-period overview of net assets

in € million	2022	2021	2020	2019	2018
Goodwill, intangible assets and property, plant & equipment	280.8	256.9	251.4	245.4	235.2
Financial assets and long-term securities (incl. deposits with a total term to maturity of more than three months)	38.3	105.9	72.1	72.1	177.5
Cash and cash equivalents (incl. deposits with a total term to maturity of less than three months)	165.4	114.0	123.7	214.8	142.6

SMA Solar Technology AG (notes based on the German Commercial Code HGB)

In addition to reporting on the SMA group, business development of SMA Solar Technology AG (SMA AG) is outlined below.

SMA AG is the parent company of the SMA group and has its headquarters in Niestetal near Kassel, Germany. Its primary business operations include the development, production and sale of systems and solutions for the efficient and sustainable generation, storage and use of energy. These include PV and battery inverters, monitoring systems for PV systems, charging solutions for electric vehicles as well as intelligent energy management systems and digital services for the future energy supply. Extensive services up to and including operation and maintenance services for photovoltaic power plants (O&M business) as well as medium-voltage technology and power supplies for hydrogen production round off the product range. In addition to its own operative business, SMA AG functions as a holding company for the SMA group. All key management mechanisms of SMA AG are oriented toward the SMA group.

The SMA AG Annual Financial Statement is prepared according to German Commercial Code (HGB). The Consolidated Financial Statements follow International Financial Reporting Standards (IFRS). This leads to differences between accounting and valuation methods. These mainly relate to intangible assets, inventory measurement, provisions, financial instruments, accrual items, leases, deferred taxes and equity.

Results of operations

SMA Solar Technology AG income statements in accordance with HGB for the period from January 1 to December 31, 2022

in '000	2022	2021
Sales	979,364	875,159
Increase or decrease in finished goods and work in progress	8,181	8,462
	987,545	883,621
Other own work capitalized	872	826
Other operating income	126,948	105,540
Material expenses	662,308	609,900
Personnel expenses	189,251	155,896
Depreciation and amortization of intangible and fixed assets	19,575	24,493
Other operating expenses	240,171	196,622
Financial result	4,088	-2,257
Taxes on income (income -/expenses +)	331	-1,635
Income after taxes	7,817	2,454
Other taxes	262	292
Annual net income	7,555	2,162
Accumulated income/losses brought forward	163,470	161,308
Profit available for distribution	171,025	163,470

SMA AG generated **sales** of €979.4 million in the 2022 fiscal year (2021: €875.2 million). This equates to an increase in sales of 11.9% compared with the previous year. PV inverter capacity sold decreased by 10.3% year on year to 12.2 GW (2021: 13.6 GW) due to higher demand for smaller devices with less power. Of this amount, 6.5 GW (2021: 8.0 GW) was attributable to affiliated companies.

Other operating income amounted to €126.9 million (2021: €105.5 million). This included income from the utilization and reversal of provisions amounting to €60.7 million (2021: €51.4 million), income from the sale of assets and real estate totaling €25.0 million (2021: €0.0 million), income from foreign currency valuation of €24.5 million (2021: €18.2 million) and prior-period income of €1.5 million (2021: €11.0 million).

Material expenses rose by €52.4 million year on year to €662.3 million (2021: €609.9 million) and correlate with increased sales.

Personnel expenses increased by 21.4% to €189.3 million (2021: €155.9 million). The increase is due mainly to the rise in the number of employees at SMA AG as part of the strategic alignment by 113 to 2,324 (excluding temporary employees, trainees and apprentices) as well as to salary increases and higher provisions for performance-based variable remuneration. A provision for a one-time payment of €8.3 million (2021: €0.0 million) is also included.

Depreciation and amortization of intangible and fixed assets declined by €4.9 million to €19.6 million (2021: €24.5 million).

Other operating expenses increased by 22.2% to €240.2 million (2021: €196.6 million). This was attributable particularly to higher operating and administrative expenses of €87.9 million compared with the previous year (2021: €80.8 million). It also takes into account €51.2 million in sales expenses (2021: €43.3 million), the recognition of provisions of €50.7 million (2021: €48.3 million) and expenses relating to foreign currency valuation of €22.9 million (2021: €9.8 million). This item also includes the remeasurement of trade receivables amounting to €1.1 million (2021: €1.1 million) and prior-period expenses of €0.5 million (2021: €0.3 million).

The **financial result** increased by €6.4 million to €4.1 million (2021: -€2.3 million). This change was attributable mainly to the fact that there was higher depreciation and amortization on shares in affiliated companies in the previous year.

Taxes on income rose by €1.9 million to €0.3 million (2021: -€1.6 million). This change was due to the higher earnings in the fiscal year as compared to the previous year.

After tax, the company reported an **annual net income** of €7.6 million in 2022 (2021: €2.2 million).

Net assets and financial position

SMA Solar Technology AG balance sheet in accordance with HGB as of December 31, 2022

in €'000	2022	2021
Assets		
A. Non-current assets		
I. Intangible assets	4,614	6,797
II. Property, plant and equipment	144,741	155,886
III. Financial assets	98,347	67,842
	247,702	230,525
B. Current assets		
I. Inventories	211,427	188,806
II. Receivables and other assets	194,120	218,172
III. Securities	38,290	105,857
IV. Cash and cash equivalents	93,392	58,580
	537,229	571,415
C. Prepaid expenses and deferred charges	4,973	3,434
	789,904	805,374
Liabilities		
A. Equity		
I. Share capital	34,700	34,700
II. Capital reserves	124,200	124,200
III. Retained earnings		
1. Statutory reserve	400	400
2. Retained earnings	3,136	3,136
IV. Profit available for distribution	171,025	163,470
	333,461	325,906
B. Special account with reserve characteristics	0	4
C. Provisions	194,369	187,331
D. Trade payables	133,586	162,734
E. Accrued liabilities	128,488	129,399
	789,904	805,374

As of December 31, 2022, **total assets** of SMA AG fell by €15.5 million to €789.9 million (December 31, 2021: €805.4 million).

Non-current assets increased by €17.2 million to €247.7 million (December 31, 2021: €230.5 million).

As of December 31, 2022, **total inventories** of €211.4 million were above the previous year's level (December 31, 2021: €188.8 million). The 12.0% increase year on year was particularly due to the increase in raw materials, consumables and supplies of €39.2 million. Advance payments for inventories decreased by €12.0 million. In view of the ongoing shortage of materials, the SMA group is continuing to pursue an intensified stockpiling strategy.

Trade receivables rose by €22.1 million and totaled €59.0 million on the reporting date (December 31, 2021: €36.9 million).

Other assets fell by €17.8 million to €35.1 million (December 31, 2021: €52.9 million) due chiefly to the settlement of a compensation claim against a supplier.

Cash and cash equivalents and securities decreased by €32.7 million to €131.7 million (December 31, 2021: €164.4 million).

As a result of earnings, **equity** increased by €7.6 million to €333.5 million compared with December 31, 2021. The equity ratio increased to 42.2% (December 31, 2021: 40.5%).

The **provisions** of SMA AG largely comprise provisions for warranty obligations for various product families and personnel provisions. The rise in provisions by €7.1 million to €194.4 million (December 31, 2021: €187.3 million) is attributable largely to the provision for a one-time payment.

Trade payables went down by €8.4 million year on year to €90.0 million (December 31, 2021: €98.4 million).

Accrued liabilities of €128.5 million (December 31, 2021: €129.4 million) were recognized for deferred sales for extended warranties sold and for long-term service and maintenance contracts.

SMA AG's **financial position** essentially corresponds to that of the SMA group.

RISKS AND OPPORTUNITIES

The business performance of SMA AG is largely exposed to the same risks and opportunities as the SMA group. SMA AG also partakes in the risks affecting its investments and subsidiaries proportionate to its respective holding. The risks are presented in the Risks and Opportunities Report. The relationships with our investments can also result in negative effects from statutory or contractual provisions for liabilities (particularly financing).

OUTLOOK

As a result of SMA AG's interdependence with its group companies and its importance within the group, please refer to our statements in the Forecast Report for the SMA group, which also outline specifically the expectations for the parent company.

Managing Board statement on the business trends in 2022

With 12,225 MW of inverter output sold (2021: 13,584 MW), the SMA group's sales volume in 2022 was 10.0% below the previous year's level. Sales increased by 8.3% to €1,065.9 million (2021: €983.4 million). The SMA group thus exceeded both the original sales guidance (€900 million to €1,050 million) from March 1, 2022, and the sales guidance of €975 million to €1,050 million, which was specified on October 27, 2022. At €70.0 million (EBITDA margin: 6.6%), operating earnings before interest, taxes, depreciation and amortization (EBITDA) were well above the original guidance issued on March 1, 2022 (EBITDA: €10 million to €60 million) and at the upper end of the earnings guidance specified on October 27, 2022 (EBITDA: €60 million to €75 million). The reasons for the good sales and earnings performance include the continuing high level of incoming orders in the second half of 2022, the implementation of price increases, and a gradually improving supply of electronic components, which led to better-than-expected business performance in the fourth quarter. In addition, a one-time item in a low double-digit million amount from a property sale had a positive effect on SMA's result in the third quarter.

Sales in the Home Solutions segment significantly increased by 26.2% to €335.0 million in 2022. The Commercial & Industrial Solutions segment also developed positively, with sales growth of 18.3% to €290.3 million. The Large Scale & Project Solutions segment reported a 6.8% decline in sales to €440.6 million. A major factor for this was project delays as a result of the U.S. antidumping policy toward Chinese module manufacturers in the first half of 2022. Incoming orders continued to develop positively as of the end of the year, allowing the SMA group to start off the fiscal year 2023 with a high order backlog overall.

At €220.1 million, net cash was almost at the same level as at the end of the previous year (December 31, 2021: €221.7 million) and significantly above the guidance of €190 million updated on October 27, 2022. The equity ratio rose to 41.8% (December 31, 2021: 38.7%). In addition, SMA has a long-term credit line from domestic banks of €100 million and further guarantee credit lines of €3.9 million. At the end of 2022, 28.1% of the entire available credit line of €103.9 million were utilized in the form of guarantee credits.

Working capital amounted to 22.4% of sales as of December 31, 2022, and was thus below the original guidance from March 1, 2022, and the updated guidance from October 27, 2022, of 26% to 28% of sales. SMA also increased its investments in inventories at the end of the 2022 fiscal year in order to guarantee delivery capacity for expected and already agreed customer projects. In this context, liabilities from advance payments received also rose, which essentially led to an improvement in working capital.

STRATEGIC POSITIONING AS "ENERGY TRANSITION COMPANY" ADVANCED¹

In the reporting year, the SMA group further pressed ahead with its strategic development into an energy transition company with suitable solutions for all key areas. It is becoming increasingly apparent that the key trends for energy supply were identified in good time years ago and suitable solutions were developed. In the areas of storage technology, charging solutions for electric vehicles, energy management and green hydrogen production, demand by far exceeded the limited delivery volumes due to the supply bottlenecks for electronic components. We will continuously develop and expand our product range in these areas and in our core business of photovoltaics with a focus on holistic, connected solutions.

¹ The following section is not a mandatory component of the combined management report as defined in Sections 289, 315 HGB in conjunction with GAS 20, and therefore not a subject of the financial audit.

We had already developed strategic areas of action in 2021 as part of the SMA Strategy 2025. These will strengthen the competitiveness of the SMA group in the long term and will be pressed ahead by corresponding business initiatives. They address key trends and growth segments with high future potential. These include PV and storage solutions, energy market integration, e-mobility and future business fields. We continued development on digital offerings in the Home Solutions and Commercial & Industrial Solutions segments and systematically expanded the range of services for PV power plants in the Large Scale & Project Solutions segment.

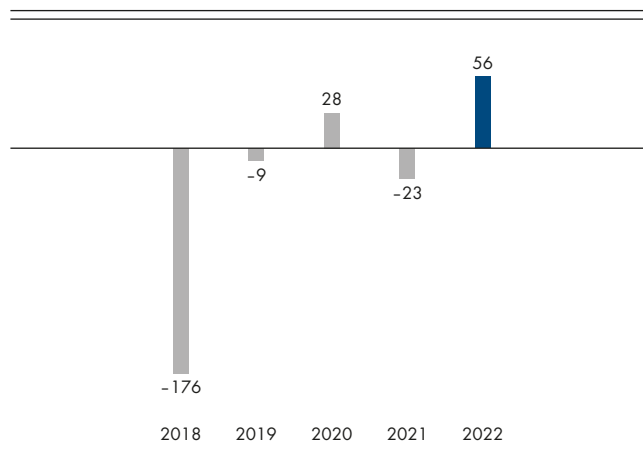
The capacity for seamless grid integration and provision of grid services is taking on crucial importance as a result of the fast-growing share of fluctuating renewable energy sources in utility grids worldwide. The SMA group's technologies meet the highest international standards here. In addition, we successfully expanded our positioning in the new business field of green hydrogen production in the reporting year. Projects with SMA system technology for the processing of direct current for electrolysis had already gone into operation in the U.S., Europe, Asia and Australia.

Guidance-actual comparison for 2022

Date of guidance	2022/03/01	2022/10/27	2022 results
Sales in € million	900 to 1,050	975 to 1,050	1,065.9
Inverter output sold in GW	12 to 15	12 to 13	12.2
EBITDA in € million	10 to 60	60 to 75	70.0
EBITDA margin in % of sales	1.0 to 5.7	6.2 to 7.1	6.6
Capital expenditure in € million	approx. 60	approx. 70	65.8
Net working capital in % of sales	26 to 28	26 to 28	22.4
Net cash in € million	approx. 175	approx. 190	220.1
EBIT in € million	-30 to 20	22 to 37	31.9
EBIT margin in % of sales	-3.3 to 1.9	2.3 to 3.5	3.0

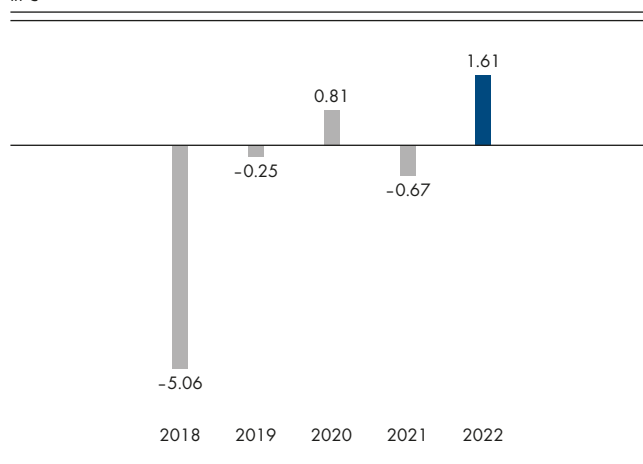
Net income

in € million



Earnings per share

in €



RISKS AND OPPORTUNITIES

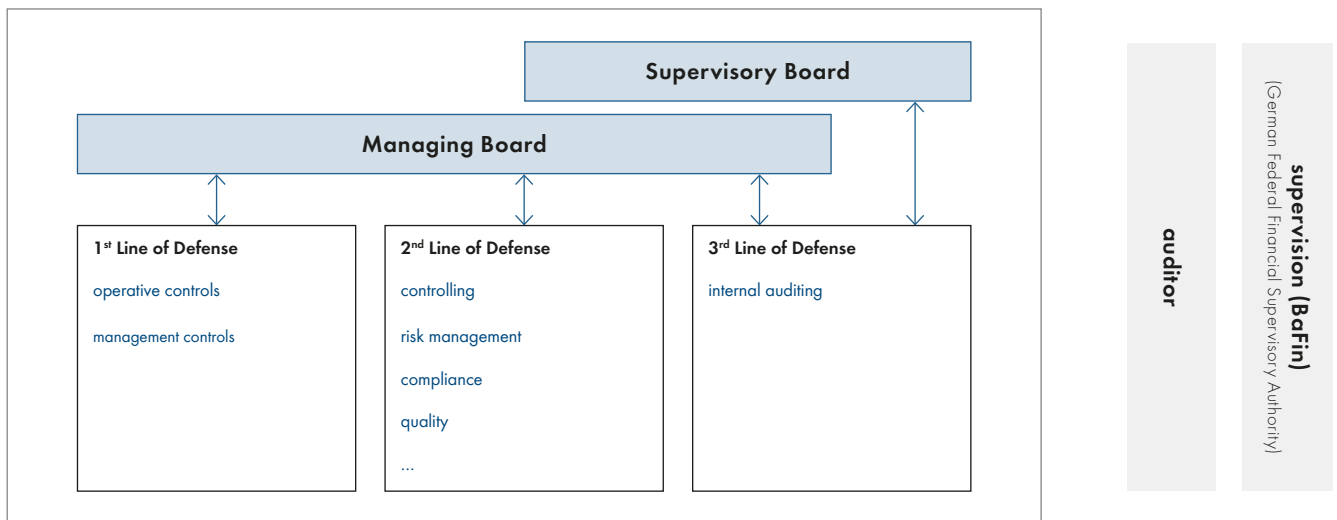
Principles of the internal control system¹

In accordance with Section 91 (3) of the German Stock Corporation Act (AktG), the Managing Board must establish an internal control and risk management system that is appropriate and effective in view of the scope of the business activities and the risk situation of the company. Clause 4 of the German Corporate Governance Code, as amended on April 28, 2022, stipulates that an appropriate and effective internal control and risk management system is required for the responsible handling of business risks, and that internal monitoring is a prerequisite for the appropriateness and effectiveness of the internal control and risk management system.

The Managing Board is responsible for implementation, adequacy and effectiveness of the internal control system. The Audit Committee of the Supervisory Board monitors the accounting process, the effectiveness of the internal control system, the risk management system and the internal auditing system on the basis of Section 107 (3) of the German Stock Corporation Act (AktG).

The SMA group applies the Three Lines of Defense (3LOD) model as a regulatory framework for an effective and comprehensive management tool for operational risks and the internal control system. The 3LOD model comprises three lines of defense to which different organizational units and functions are assigned and which are entrusted with different risk management tasks.

Three Lines of Defense model



The first line of defense is made up of functions such as accounting, sales or logistics, carries out the operational processes in day-to-day business and is responsible for identifying and assessing risks as early as possible and implementing and executing effective and efficient internal controls. Operational management controls and monitors the processes and carries out higher-level controls.

¹ The following section is not a mandatory component of the combined management report as defined in Sections 289, 315 HGB in conjunction with GAS 20, and therefore not a subject of the financial audit.

The second line of defense consists of governance functions such as controlling, compliance and risk management. It supports and monitors the first line of defense, defines framework conditions through guidelines and policies, methods and procedures, and is responsible for reporting to management.

The tasks of the third line of defense are performed by the Internal Audit department in its capacity as an independent, risk-oriented auditing and advisory body. With the highest degree of independence and objectivity within the company, the Internal Audit department supports the company management, operational management and monitoring bodies in effective and efficient process and risk management. On the basis of a risk-oriented audit plan, the Internal Audit department regularly examines the effectiveness of the internal control system by means of sampling and thus also checks material parts of the internal control system as it pertains to the (group's) accounting process.

Description of the internal control system¹

Basic elements

The SMA group bases the structure of its internal control system on the globally recognized standard of the model that the Committee of Sponsoring Organizations of the Treadway Commission (COSO) uses for its own internal control system. The COSO model has three dimensions, consisting of three target categories (first dimension), five components (second dimension) and the various organizational units and functions of a company (third dimension). However, the precise, company-specific design of the internal control system is not specified by the COSO model, but is the responsibility of and at the discretion of the company's management.

The SMA group has established the internal control system based on the COSO model by implementing the five basic elements of control environment, risk evaluation, control activities, information and communication, and monitoring in the main business-critical, operational, non-financial and accounting processes, as well as in all relevant or business-critical group companies and functions.

The control environment is characterized by the binding ethical principles found in the Code of Conduct and the Compliance Manual, a clear assignment of responsibilities for management processes and the provision of various reporting options for potential misconduct. Risks are evaluated taking into account

medium- and long-term strategic goals, short-term operating budget targets and the regular identification of risks of deviation in the achievement of targets at process and financial levels. The control activities partly relate to the implementation of appropriate measures to mitigate identified risks to target achievement, regular internal reporting on the target achievement status of the operating budget and non-financial key performance indicators. Information and communication regarding data from financial reporting and core operational processes is procured through the use of up-to-date, appropriate software from SAP SE and allows the provision of timely and relevant information to the respective internal and external stakeholders. Monitoring takes place via a periodic self-assessment of the internal control system by the Managing Board of SMA Solar Technology AG, regular internal reporting and the auditing activities of the Internal Audit department.

Objectives

The internal control system of the SMA group pursues operational, reporting and compliance objectives. The most important operational objectives are to ensure the effectiveness, functionality and efficiency of the business processes and thus to achieve the periodic targets. The objectives relating to reporting comprise internal as well as external reporting that is correct, timely and complete, i. e., proper and reliable. This includes all financial and non-financial reports and key figures. Regarding compliance, the internal control system serves the goal of adhering to the relevant legal regulations and the specified internal regulations in all business activities while also avoiding any violations. To achieve these goals, management mechanisms and control systems have been established at the group level.

Features and components

The SMA group's internal control system includes all the principles, procedures and measures introduced by the management in the group, which serve to ensure the proper course of business activities. It is made up of systematically created organizational and technical measures and controls within the company aimed at guaranteeing adherence with the applicable laws and regulations, as well as binding guidelines and work instructions for preventing damage that might be caused by its employees or third parties.

¹ The following section is not a mandatory component of the combined management report as defined in Sections 189, 315 HGB in conjunction with GAS 20, and therefore not a subject of the financial audit.

The SMA group's internal control system contains regulations and measures such as automated controls in the IT systems, regulations on powers of attorney, staged value and release limits, process documentation and work instructions, specifications on the two-person rule, electronic workflows, separation of functions and authorization plans as key control elements. The regulations and measures relate to operational processes, non-financial processes and accounting-related processes. Control activities are both preventive and aimed at averting errors or adverse events and thus focus on both the past and the future.

The internal control system is subject to ongoing development and is adjusted in line with changes in the process landscape. It should be noted that, regardless of the specific nature and scope of the control measures, the internal control system does not provide absolute certainty that all errors, inefficiencies and weaknesses in business processes and reporting will be detected in full or in a timely manner.

Compliance management system

The SMA group's compliance management system focuses on a value-based approach and promoting a culture of compliance. This is based on the conviction that a compliance culture established throughout the group offers the best protection against legal violations and reputational risks. The SMA Compliance Charter defines the elements of the compliance management system as well as the main responsibilities for compliance within the SMA group. The system is continuously developed by Compliance function employees on the basis of regular risk analyses. A key component of the compliance management system is the Code of Conduct for Employees. It forms an SMA-wide uniform framework that underscores the group's desire to fully implement and comply with all legal and regulatory requirements in particular. With the Code of Conduct for Business Partners, SMA also passes on these principles to suppliers and significant other business partners. The compliance guidelines found in the SMA Compliance Manual contain specific instructions for action and prohibitions – such as approval limits for gifts and invitations – to prevent corruption. Employees are made aware of the contents of the Code of Conduct and the compliance guidelines through regular training sessions. The frequency and scope of training courses depend on the participants' risk situation in their specific roles. In the case of

suspected compliance violations, employees of the SMA group and all external stakeholders also have access to the "speak-up line." This whistleblower system is operated by an external provider and can be used in the respective native language of the reporting person. At the whistleblowers' request, their identity is kept anonymous. At regular intervals, the Compliance function reports to the Managing Board of SMA Solar Technology AG and the Audit Committee of the Supervisory Board with information on the latest developments, suspicious cases, measures and processes.

Key features of the internal control system in relation to the (group) accounting process

The internal control system pertaining to the accounting process is part of the overall internal control system, which is supported by the risk and opportunity management system. Process-integrated and process-independent monitoring steps are elements of the internal monitoring system. Key components of the process-integrated measures are automated process controls and organizational monitoring methods, such as the two-person rule, the separation of administrative, execution, settlement and approval functions, and written work instructions. Furthermore, wherever possible, the IT systems deployed against unauthorized access by using appropriate authorization systems and access restrictions are protected.

Important risks in the (group) accounting process include the possibility that the local financial statements of the consolidated group companies fail to properly reflect the true net assets, financial position and results of operations due to unintentional or deliberate wrongdoing, or that publication of the Quarterly Statements or of the Annual Financial Statements or Consolidated Financial Statements is late. These risks could harm the SMA group and cause lasting damage to its reputation. The SMA group's internal control system as it pertains to (group) accounting is concerned with minimizing the risk of misstatements in the group's bookkeeping as well as in external financial reporting.

The internal control system measures are aimed at securing proper and reliable (group) accounting and ensure business transactions are fully, correctly and promptly recorded in accordance with legal provisions and the articles of association. They also guarantee that the process of stock taking is properly implemented and that assets and liabilities are appropriately recognized, measured and shown in the Annual Financial Statements and Consolidated Financial Statements. Furthermore, the regulations ensure that accounting records provide reliable and comprehensible information. The main tasks of the departments involved in the (group) accounting process are clearly separated and their areas of responsibility are clearly assigned.

The SMA group constantly evaluates laws, financial reporting standards and other agreements and considers their relevance and impact on the (group) accounting process. Applicable requirements are promptly communicated to all group companies. The uniform IT platform, group account plan and standardized processes ensure proper and timely recording of all important business transactions. There are binding rules for the recording of manual business transactions. An accounting manual specifies the group-wide implementation of accounting provisions in accordance with the International Financial Reporting Standards (IFRS). In addition to general accounting principles and methods, the regulations, above all, include requirements concerning the balance sheet, income statement, statement of comprehensive income, management report, statement of cash flows, statement of changes in equity, and notes including segment reporting as well as combined management report in compliance with EU legislation. By defining clear requirements, the risk of inconsistent practices when recognizing, measuring and reporting assets and liabilities should be reduced. In addition, a check is carried out centrally on the financial statements submitted by the companies included in the scope of consolidation while referring to the audit reports drafted by the local auditors. Each month upon submission of the reporting packages, those responsible at the subsidiaries also confirm the propriety and completeness of each financial statement by way of an internal declaration of completeness.

Business transactions of SMA Solar Technology AG and all the larger subsidiaries are primarily recorded using Enterprise Resource Planning (ERP) systems from SAP SE. These are protected from misuse by appropriate authorization systems and access restrictions. The authorizations granted are reviewed and amended regularly if necessary. The centralized control and monitoring of nearly all IT systems, centralized change management and regular system and data backups minimize not only the risk of data loss, but also the risk of IT system failures related to (group) accounting. Smaller companies either operate local ERP systems or commission external service providers with their own IT systems.

Use of a uniform, group-wide consolidation program ensures that all data is recorded properly, promptly and completely and that internal business transactions within the group are eliminated. This is from where the various components of the Consolidated Financial Statements and important data for the Notes to the Consolidated Financial Statements are derived.

The internal control and risk management system enables control of risks that might otherwise prevent the Annual Financial Statements and Consolidated Financial Statements from being properly drawn up and is therefore continuously being improved. However, company-wide application of the regulatory and control measures cannot guarantee absolute reliability with regard to the accurate, complete and timely recording of all facts in (group) accounting and in the detection of irregularities.

Principles of the risk and opportunity management

In the context of its business activity worldwide, the SMA group, as a specialist in photovoltaic system technology, is exposed to a range of risks, which can impair the successful implementation of the corporate strategy and the achievement of targets in the business units. To ensure systematic early identification of risks throughout the group, the SMA group has a group-wide monitoring system to identify risks at an early stage that threaten the existence of the company in accordance with Section 91 (2) of the AktG. The risk and opportunity management system identifies existence-threatening risks and other risks early on and actively manages, influences and monitors them by means of suitable measures beyond the legally defined scope. A risk is defined by the SMA group as an event that ensues from a decision made by management (strategic), an action (operative) or external circumstances and – if the risk occurs – results in a negative deviation from the planned EBIT. To safeguard potential opportunities, opportunities are systematically identified and assessed by means of opportunity management. For the SMA group, an opportunity is the possibility of an event occurring that leads to a positive deviation from the planned EBIT. The risk and opportunity management system is based on the conceptual framework of the Enterprise Risk Management – Integrated Framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO), which is an internationally accepted standard for establishing and systematically developing a company-wide risk management system. The SMA group uses a uniform software application to systematically record and report risks and opportunities and meet documentation requirements.

Description of the main features of the early risk detection system

Objectives and strategy

The purpose of the SMA group's risk and opportunity management is to identify risks above a defined threshold as early as possible, present them transparently and comparably and assess and manage them. The SMA group must responsibly accept risks to a controllable and viable extent in the course of business operations in order to be able to exploit business opportunities. The Managing Board of SMA Solar Technology AG bindingly laid out the objectives, strategies and organization of risk and opportunity management as well as the principles of risk and opportunity analysis and risk and opportunity communication in the SMA group's risk manual. It contains all methodical and organizational regulations for dealing with risks and opportunities, requirements and value limits as well as uniform regular and internal ad hoc reporting processes.

Organization of risk and opportunity management

The Managing Board of SMA Solar Technology AG bears overall responsibility for effective risk and opportunity management and ensures that all identified risks and opportunities are considered comprehensively and uniformly. The Supervisory Board is responsible for monitoring the effectiveness of the group-wide risk and opportunity management system. To perform this task, the Audit Committee provides the Supervisory Board with all relevant information on risk and opportunity management. Process and system responsibility for the uniform group-wide risk and opportunity management system lies with the Corporate Audit, Risk & Information Security department. This department reports directly to SMA Solar Technology AG's Chief Financial Officer and is responsible for implementation of group-wide risk and opportunity management standards and methods and for coordination and ongoing development of the risk and opportunity management process. As the highest internal body, the Risk and Opportunity Board ensures that all significant risks and opportunities across all functions and processes are identified, assessed and managed at an early stage. It is also responsible for monitoring the risk and opportunity management system and improving its effectiveness and efficiency. The Risk Control Circle has the task of identifying and assessing possible dependencies (correlations) between individual risks and evaluating the suitability and effectiveness of risk control measures. All fully consolidated subsidiaries and business areas of the SMA group are included in the scope of the risk and opportunity management system.

Process of the risk and opportunity management system

Once a quarter, select skilled employees and executives from the first two levels below the Managing Board of SMA Solar Technology AG and select central group functions ("risk owners") assess the risk and opportunity situation of the SMA group in a standardized IT supported "bottom-up process."

The main steps of the risk and opportunity management process are explained hereafter:

RISK AND OPPORTUNITY ANALYSIS

Risk and opportunity analysis entails both the comprehensive identification and assessment of risks and opportunities. Risk owners are obliged to check on a regular basis whether the risks and opportunities within their areas of responsibility are complete and up to date and to identify and assess new risks and opportunities. SMA assesses all risks and opportunities within the SMA group based on a uniform set of assessment principles. For each risk and opportunity, the relevant risk owner assesses its probability of occurrence and its impact (potential amount of damage caused or potential benefit generated in euro). The classification of risks is based on the following diagram:

Assessment system for risks

Impact in € million		Probability of occurrence in %			
		Unlikely (≤ 5)	Possible (> 5 to ≤ 25)	Likely (> 25 to ≤ 50)	Very likely (> 50)
Very high (> 15)		C	B	A	A
High (> 7.5 to ≤ 15)		C	B	B	A
Medium (> 2.5 to ≤ 7.5)		C	C	B	B
Low (> 0.3 to ≤ 2.5)		C	C	C	C

The amount of damage is measured based on the potential impact on the planned annual EBIT. Risks need to be mentioned in the quarterly risk assessment reports only if the potential amount of damage resulting from the risk exceeds the threshold of €300,000.

Opportunities were classified as follows:

Assessment system for opportunities

Impact in € million	High (> 2)	C	B	A	A
	Low (> 0.5 to <= 2)	C	C	B	A
		Unlikely (<= 5)	Possible (> 5 to <= 25)	Likely (> 25 to <= 50)	Very likely (> 50)
		Probability of occurrence in %			

Opportunities have to be mentioned in the quarterly risk assessment reports as soon as the potential benefit resulting from the opportunity exceeds the threshold of €300,000 (previous year: €500,000).

Both a gross and net assessment must be made for every risk within a projection period of one year. The gross assessment represents the largest possible negative impact on the EBIT anticipated before the implemented management measures take effect. The net assessment then considers the risk-reduction measures. Opportunity assessment is based exclusively on a net principle.

To assess materiality, the risks and opportunities are classified as category A, B or C risks and opportunities based on a combination of the assessment of probability of occurrence and the impact over the reporting period on which further internal reporting depends. The individual risks and opportunities for the SMA group are described in the next "Individual and overall analysis of risks and opportunities" section.

OVERALL RISK ASSESSMENT

A probability distribution is defined for all risks and opportunities. The overall risk is then assessed using an IT-assisted simulation process in which all risks and opportunities are evaluated on an aggregated basis. To determine the overall risk, the key figure "net value at risk" is calculated with a 95% confidence interval¹. Compared with the previous year, provisions and impairment losses recognized in the balance sheet for individual risks have been offset as risk-reducing measures and taken into account in the determination of the overall risk since this fiscal year. To be able to assess the overall risk periodically and identify risks to the company's existence at an early stage, the Managing Board of SMA Solar Technology AG has introduced thresholds for risk tolerance and risk-bearing capacity. The net value at risk is considered in relation to the SMA group's equity and net cash. The overall risk is presented in the regular quarterly reporting and if the defined thresholds are exceeded, additional measures are initiated to manage and reduce the risk.

RISK CONTROL

While taking into account the corporate strategy, the objective of risk management is to actively influence identified and assessed risks. The SMA group's risk situation must be positively affected in a targeted way using suitable measures. In order to reduce the overall risk, the risk owners have the task of developing and implementing effective measures, among others. Suitable measures include, for example, forming security reserves or transferring risks to third parties (e.g., through insurance companies). With regard to risk management, these measures and their implementation are subject to regular review and adjustment by the risk owners. In addition, the Risk Control Circle reviews the plausibility of measures relating to the major risks on a quarterly basis.

RISK AND OPPORTUNITY REPORTING

The development of all risks and opportunities is regularly monitored and reported. Our risk and opportunity management system is designed to ensure that the risk owners can identify risks and changes to them early on as well as report them to the decision-makers in the company. These reports are made directly to Corporate Audit, Risk & Information Security using the standard software application. To maintain high reporting quality, the segments are closely integrated into the regular process and ensure that all significant risks and opportunities for their respective

¹ The confidence interval (also called the confidence range) is the range the determined value is expected to fall between with a certain probability.

business fields are fully documented and correctly evaluated in the risk and opportunity management system. Once a quarter, significant risks, opportunities and measures along with adjustments to the risk and opportunity management system are presented to the Risk & Opportunity Board. In addition, every six months the Supervisory Board's Audit Committee is informed of significant risks and opportunities and any newly identified risks that are classified as at least category B. In addition, risk owners are required to report risks to the Managing Board of SMA Solar Technology AG without delay if new risks are classified as A risks or existing risks develop into A risks. The Managing Board decides whether such changes are reported to the Supervisory Board's Audit Committee on an ad hoc basis or during the regular reporting cycle. To ensure integration with the (group) accounting process, the risk and opportunity management process follows the coordinated schedule and thus provides the SMA functions involved in (group) accounting and financial reporting with the relevant information in full.

Description of the climate-related risk and opportunity management

To support our sustainability initiatives and strategic objectives, we also take climate-related risks and opportunities into account. The process stipulates that all climate-related risks and opportunities are to be identified and assessed once a year. These climate-related risks and opportunities are assessed qualitatively with regard to their probability of occurrence and impact (potential damage/potential benefit) for the short term (up to 1 year), the medium term (1 to 3 years) and the long term (3 to 5 years). If climate-related risks and opportunities also have a financial impact in relation to a time horizon of 12 months and exceed the defined thresholds for being recorded in the risk and opportunity management, then these risks and opportunities are also recorded in the risk and opportunity management.

Climate-related risks and opportunities are classified on a uniform basis for all assessment periods as shown in the following diagram:

Assessment system for climate-related risks and opportunities

Impact	High	C	C	A	A
	Medium	C	C	B	B
	Low	C	C	C	C
		Very unlikely	Unlikely	Likely	Very likely
Probability of occurrence					

Based on the annual assessment of all climate-related risks and opportunities, the results are reported to the Risk & Opportunity Board and all climate-related risks and opportunities classified as A or B are presented.

Description of the other risk and opportunity management

In a target-oriented management system, risks and opportunities represent possible negative or positive deviations of the results from the target figures. For this reason, in addition to the early risk detection system (risk and opportunity management) and climate-related risk and opportunity management, further function-specific or task-specific methods are used to identify, assess and manage operational risks and opportunities, depending on the criticality and importance of the business or sub-process. The implementation of these tasks has been delegated to the departments and is subject to decentralized management. For example, in the processing of customer-specific orders (project business), risks are identified in a structured manner, assessed and minimized using suitable measures, or in the context of product development, depending on the progress of individual projects, the risks to the achievement of project objectives are regularly assessed and documented and risk management measures are identified.

Overall statement on the internal control and risk management system¹

With the Three Lines of Defense model, including governance, risk management and compliance processes, the SMA Solar Technology AG Managing Board has set a regulatory framework with the objective of an appropriate and effective internal control and risk management system. The monitoring methods of the internal control system and the control processes particularly include independent audits by the Internal Audit department and their reporting to the Managing Board and the Audit Committee of the Supervisory Board. The Managing Board also periodically carries out a structured evaluation of the internal control system. The individual risk management elements are monitored in part by the Internal Audit department and in part by the Managing Board.

Based on the internal control system and the risk management system as well as the oral and written reports of the Internal Audit department, the SMA Solar Technology AG Managing Board is not aware of any facts or indications that point to a lack of or insufficient appropriateness and effectiveness of the systems and processes concerned.

Risks and opportunities report

Individual and overall analysis of risks and opportunities

In this section, the risks classified as significant with disadvantageous impact on business and the associated net assets, financial position and results of operations of the group and the company's reputation, as well as opportunities with a beneficial impact that are assessed as significant are described. The summarized overview of significant risk and opportunity areas shows the risks described below according to the SMA group's assessment after taking appropriate measures (net risks). This assessment relates to all segments. For the respective risk and opportunity areas, the net value at risk is calculated and presented with a 95% confidence interval using an IT-assisted simulation method. The order in which the risk areas are presented within the seven risk and opportunity categories should not be taken as an order of priority:

Overview of potential financial impact of significant risk and opportunity areas

	Potential financial impact (net) in 2023 ¹		Change compared to previous year ²
	Negative	Positive	
Strategic risks			
Political and regulatory risks	--		↑
Competition risks	--		↔
Market risks	-		↔
Portfolio risks	--		↔
Operating risks			
Procurement and inventory risks	----		↔
Product risks	--		↓
Operational risks	----		↔
Sales risks	-		↓
Service risks	---		↔
Environmental risks	-		↔
Financial risks			
Liquidity risks	-		↔
Interest rate and currency risks	-		↔
Default risks	--		↔
Compliance risks			
Risks from violations of the law and regulations	----		↔
Risks from breaching contracts and obligations	---		↔
IT risks			
IT security risks	--		↑
Product cybersecurity risks	-		↔
Personnel-related risks			
Personnel recruitment risks	--		↔
Personnel retention risks	-		↔
Opportunities			
Opportunities from business activity		+	↔
Opportunities from cost savings		+	↔
Opportunities from improved processes		+	↔
Overall risk position			
Overall portfolio (risks and opportunities)	----		↔

¹ In relation to a 95% confidence interval for each risk and opportunity area. Addition of individual values is not permitted. Due to the change in the assessment method, the comparative values from the previous year are used to determine the values of change compared with the previous year without taking into account provisions and impairment losses. Even if the previous year's assessment method were applied, there would be no changes in the possible financial impact classes for the individual risk and opportunity categories.

² ↑ higher than previous year; ↔ no changes; ↓ lower than previous year

¹ The following section is not a mandatory component of the combined management report as defined in Sections 289, 315 HGB in conjunction with GAS 20, and therefore not a subject of the financial audit.

Impact categories of the risk and opportunity areas

Risks:	Net value at risk _{95%}
-	> -€3 million
--	> -€10 million to ≤ -€3 million
---	> -€25 million to ≤ -€10 million
----	> -€199 million to ≤ -€25 million
Opportunities:	Net value at risk _{95%}
+	< €5 million
++	≥ €5 million to ≤ €49 million

The simulation of the overall risk as of December 31, 2022, and the associated calculation of the net value at risk with a 95% confidence interval showed that the thresholds for risk-bearing capacity in relation to equity and net cash were not exceeded.¹

Strategic risks

POLITICAL AND REGULATORY RISKS

Regulatory changes with regard to government subsidy conditions as well as technical regulations in individual markets may continue to cause high fluctuations in demand in the photovoltaics sector. Compared with the previous year, we see increased political and regulatory risks due to tightening requirements and protectionist tendencies, such as trade restrictions in individual countries. Regional and cyclical volume fluctuations that affect the SMA group and therefore complicate corporate planning may also occur.

The legislation for the implementation of national energy industries and the respective technical consequences at a national and international level are undergoing change. Various legislative processes are currently being initiated or are in the process of implementation in connection with the international community's climate protection policy, such as the European Green Deal for climate neutrality of the 27 EU member states by 2050 and the need for digitalization as well as for the establishment of a resilient value chain. Due to the current geopolitical situation, especially the war in Ukraine and the associated impact on energy prices, solar energy will become even more important in the future. The regional forms of legislation and their effects on the SMA group's profitability are still not specifically foreseeable yet. If new normative regulations are introduced and they are not implemented in the product and service portfolio properly or in a timely manner, this will have a detrimental impact on the SMA group's profitability.

¹ Even if the previous year's assessment method had been used, the thresholds for risk-bearing capacity would not have been exceeded.

To be able to respond promptly to emerging changes in subsidies and standards in target and existing markets, the SMA group uses a network of industry associations to anticipate these changes at an early stage. This information is included in the regular market analyses. Short-term fluctuations in demand are considered in the rolling forecast process. Thanks to its high level of flexibility in production, the SMA group can usually respond quickly to market changes. In addition, the SMA group works to directly contact the certification authorities and electric utility companies to be able to make any necessary modifications to its product and service portfolio in due time. The SMA group is still actively involved in indirect representation of its interests and promotes dialogue between industry associations, politicians and scientists on the state of knowledge with regard to renewable energies. Our employees actively contribute to new technical guidelines through standards associations and other organizations. The SMA group regularly reviews the assumptions and associated risks with regard to strategic projects. This procedure allows us to react quickly to regulatory and market-driven changes in what is required of our products.

For more information on development in individual markets, please see the remarks in the [“Future general economic conditions in the photovoltaics sector”](#) section.

COMPETITION RISKS

The currently extremely attractive market environment for PV systems is intensifying the fierce competition. Some competitors are trying, with varying degrees of success depending on the region and market, to gain market share through delivery capacity, as the availability of inverters is currently more important than pricing. This could result in negative effects on the business development and earnings of the SMA group. In the 2022 fiscal year, the SMA group suffered a loss in market shares, mainly as a result of the greater delivery capacity offered by Chinese competitors. There will be a gradual improvement in the situation in the 2023 fiscal year owing to the anticipated improvement in material availability for the SMA group.

In addition, there is the risk that competitors will further improve the quality, functionality or performance of their products and adapt better than the SMA group to the prevailing market requirements in certain markets. With expenditure for research and development (including capitalization) of €86.8 million in the 2022 fiscal year corresponding to a ratio of 8.1% of sales, the SMA group is well positioned to set important trends with new products, systems and solutions and thus to maintain or expand its market share.

As a result of inverter commoditization, the service portfolio is a significantly important distinguishing feature for customers. However, there is a risk that the service quality of the SMA group could deteriorate and thus no longer be perceived by market participants as a differentiating feature in comparison to its competitors. To maintain and further increase our customers' satisfaction, the SMA group counters this risk with user-friendly IT systems, optimized warranty conditions and improved service offers geared continuously to our customers' needs.

Cost-out measures and various projects aimed at increasing efficiency are showing results and are being pursued systematically, although the uncertain future price increase rates for raw materials and electronic components could weaken their effects.

MARKET RISKS

The risk of declining market shares in conjunction with the risk of aggressive competition or changes in market conditions is regularly assessed by the segments based on the forecast process with Sales. These risks are countered with adjustments to the product and solution portfolio that are appropriate to market changes and the consistent positioning of the SMA brand.

Nonetheless, there is a certain dependence on individual regions or markets (e.g., U.S. business). The inverter technology business for large-scale storage in Europe is currently challenging and characterized by high pressure on margins. A downward trend continued to be observed in the APAC region across all segments. However, as the Forecast Report shows, the Managing Board of SMA Solar Technology AG sees medium-term prospects as highly positive. In addition, the SMA group is striving to reduce its dependence by positioning in all major global markets.

Formation of buying syndicates can increase the dependency of the SMA group on a few wholesalers or specialist wholesalers and other customers generating large sales. This dependency harbors a risk because of these large customers gaining more negotiating power coupled with increased price pressure. By means of its targeted sales strategy, the SMA group is striving to avoid dependency on individual customers. The share of total sales of the ten largest customers worldwide could significantly be reduced to approximately 31% in the 2022 fiscal year (2021: 37%).

For more information on development in individual markets, please see the remarks in the [“Future general economic conditions in the photovoltaics sector”](#) section.

PORTFOLIO RISKS

In addition to optimizing existing products and developing future product generations, the SMA group's goal is to develop complete system solutions and digital business models in line with changing customer requirements and make them market-ready within a short time. However, this gives rise to the risk that vital technological trends are identified too late or that market launch is delayed due to development stages that are too long. The SMA group is consciously seeking collaboration with research facilities to advance strategic development projects. However, we cannot rule out that individual development projects will fail to deliver expected positive economic results or do so in the expected time frame. The ongoing streamlining of product platforms entails the risk of temporary delays in individual power classes or product generations within a segment reaching the series production stage and of competitors being able to fill such gaps in the portfolio quicker than the SMA group.

The SMA group is increasingly involved in strategic alliances to generate economies of scale and to expand and complement its product portfolio.

For additional details, please refer to the information on research and development in the Management Report.

Operating risks

PROCUREMENT AND INVENTORY RISKS

On the procurement side, the company is still exposed to a high dependence on certain suppliers. We work to minimize these risks through market analyses, evaluation of suppliers, flexible supplier agreements, clearly defined quality standards and reducing dependence on individual key suppliers. In its new innovations, the SMA group therefore significantly reduces the number of product platforms, makes greater use of standard components and qualifies alternative suppliers to increase flexibility.

Due to strong global demand and the continuing coronavirus pandemic, including delays in supply chains, delivery capacity for numerous electronic components and individual raw materials remains limited. This trend could continue into 2023 across all segments. The SMA group is counteracting this situation by implementing a closely monitored, proactive stockpiling strategy, bringing on board more suppliers and stockpiling more critical material

groups. For the SMA group, there is thus an increased risk that certain raw and production materials may not be available on time or in sufficient quantities due to a shortage of certain primary materials, dependence on certain suppliers or loss of individual strategic suppliers and that this will lead to delays, particularly in the production and delivery of the products. If an unexpected drastic reduction in sales volumes were to occur in the short term, long lead times may result in purchase commitments for raw materials that are surplus to actual requirements.

The global shortage of materials, long delivery times and limited transportation capacity, largely due to the coronavirus pandemic, as well as the current inflation rates have caused many raw material prices and ancillary procurement costs to rise sharply. This is also attributable to steadily growing demand (particularly from China), which cannot be met in full despite increases in supply. The trend shows that this price level has to be expected until well into 2023. In particular, price premiums – which were substantial in some cases – also had to be accepted for materials that were, to some extent, only available on the spot market. For the SMA group, there is a risk here that increased manufacturing costs may impair products' profitability and that it may not be possible to pass on the higher costs in full to customers via rising selling prices.

Regular inventory analyses are carried out in connection with increasingly shorter innovation cycles and resulting potential inventory write-down requirements. Inventories are continuously monitored and adjusted to the corresponding requirement with active controlling tools and early warning systems. By monitoring changes in important raw material prices, trends should be identified in a timely manner and compensatory mechanisms developed with suppliers before they affect purchase prices and negatively influence the earnings of the SMA group. The ongoing optimization of the purchasing structures is having a positive impact on purchase prices and logistics costs and reducing dependence on individual suppliers. As part of our global purchasing and commodity strategy, these activities are being pursued and further expanded in a sustainable manner. However, the current inflation-driven and pandemic-related price increases for many important materials entail a risk that active management of purchase prices may not be able to generate the desired positive effects on earnings in full.

If any inventory risks due to surplus inventories or obsolescence are identified, these are taken into account in corresponding impairment losses.

For more information on development in individual markets, please see the remarks in the "Overall statement from the Managing Board on expected development of the SMA group" section of the Forecast Report.

PRODUCT RISKS

We are always striving to develop new products, systems and solutions according to customer demands and to optimize existing ones. For this reason, we use new materials and technologies in development to make innovations possible. This can result in SMA group products being defective. Large delivery lots bear the risk of errors or defects affecting a product series or several product batches. Production shortcomings may derive from SMA development errors or production faults or from defects in primary products provided by suppliers. Unidentified incompatibilities can also emerge after products are launched, which require improvement to the customer system on-site after installation to prevent the product from posing a danger to the customer, in the worst-case scenario. A lapse of reliability of our products could bring about a long-term loss of trust and reputation. In addition, any necessary repairs or replacements would have a negative impact on earnings of the SMA group.

If responsibility for the error lies with the supplier, then the supplier must bear the direct costs. If responsibility for the error lies with the SMA group, then product liability insurance covers third-party losses incurred. Newly developed products may be subject to more failures than established products. We are able to minimize this risk through comprehensive testing within the development phases, accompanying quality inspections during production and field testing prior to scheduled serial production. As soon as device failures occur that stand to cause considerable losses, an analysis is performed without delay, and measures are immediately taken to rectify them.

To continuously increase the quality of our products in addition to general process improvements covering the entire value chain, new developments are backed by specific stress and qualification tests, and tests are carried out on the entire series. In the event of technical faults with the products in the field, all SMA departments involved jointly assess the nature and scope of the fault and the need for repair or replacement of the devices and implement appropriate measures. If the sources of the fault are identified, the necessary corrective actions are introduced immediately and are taken into account via corresponding provisions in the balance sheet. We make provisions for legal disputes related to product risks if we consider it likely that such claims can be asserted against us.

Product risks were lower than in the previous year thanks to the re-placement and repair of defective equipment, the lower expected defect rate based on updated quality data and the associated reduction in individual case-related warranty provisions, as well as the conclusion of agreements with customers regarding notifications of defects.

OPERATIONAL RISKS

Numerous facilities, equipment and systems are required to operate the production and administrative infrastructure, and their smooth operation is exposed to risks due to a number of factors, including natural disasters, accidents, incorrect use, wear and force majeure. The SMA group is well aware of this and employs a preventive maintenance and servicing management strategy to mitigate the risk of infrastructure downtime or other system impairment. In addition, appropriate property and business interruption insurance has been taken out against any potential damage. Appropriate insurance policies are also in place to cover the risk of loss or damage to movable goods and products.

Fulfillment of the various operating performance tasks in the individual function areas is still exposed to a cost and performance risk. Function operations can be impaired by staff shortages, unexpected cost increases or technical malfunctions in a way that function targets may not be met on time, to the fullest extent or only at an increased cost. Extensive cost and performance indicators are regularly assessed and monitored to minimize these risks.

When introducing new operational processes and IT systems or changing existing ones, delays, outdated systems, inadequate master data quality or design flaws may impair efficient business organization and processing. The SMA group counters this by means of systematic project management and a suitable structure and process organization. As part of the Digital Core program, the SMA group is working on the development of digital processes and IT applications to position the company for the future. This includes standardizing the system landscape, redesigning core processes and automating process steps. For example, the central ERP system was smoothly migrated to a new, future-proof version in the past fiscal year.

As a result of the ongoing uncertainties relating to international supply chains, there are risks to operations from a possible delay in the supply of raw materials, supplies, intermediate products and materials and in the performance of services required for operations and production on the part of suppliers, which could lead to unforeseeable business interruptions, particularly in the areas of production and logistics. For this reason, the SMA group is in constant contact with all important suppliers in order to identify any bottlenecks at an early stage and to be able to implement any necessary measures.

SALES RISKS

The SMA group uses a worldwide distribution network to sell its products and is largely dependent on the high reputation of its products. Quality problems or performance weaknesses perceived in the market can have a detrimental effect on the image and thus on sales success. Likewise, misinformation in the media and social networks may damage the reputation of the SMA group's products and lead to a loss of sales. If the SMA group experiences delivery problems or the market readiness of new products or product generations is delayed, there is also the possibility that sales volumes or profit margins are affected.

The SMA group takes particular measures to counteract these challenges, including consistent quality management, pilot projects to develop digital energy services and online sales channels for select markets. The aim here is to gradually establish and expand new business areas. Due to intensified use of various sales management tools and the improvement in product quality, sales risks decreased year on year.

SERVICE RISKS

Although our products are distinguished by their considerable longevity and reliability, SMA devices sometimes need repairing, reconditioning or replacing. The Service organization of the SMA group and its certified partners are responsible for the global alignment and execution of operational service business across all markets.

In the context of operation and maintenance services for PV power plants (O&M business) in particular, there are risks to the SMA group's profitability. Due to long-term service and maintenance contracts, the SMA group is obligated to carry out various services, ranging from PV system monitoring to end-to-end operational management. These O&M contracts aim to maximize the service life of systems and ensure smooth and efficient operation of PV power plants. In some cases, because of highly extensive and complex contract clauses, there is a risk of legal disputes with customers or service partners with respect to the performance and invoicing of services and a risk of compensation payments due to PV system unavailability.

In the area of repair services for inverters within and outside of warranty obligations, there are risks relating to the availability of spare parts. If sufficient quantities of spare parts are not available in the relevant regions at the required time, delayed or incomplete services can harm the reputation of the SMA group or result in claims for compensation from customers.

ENVIRONMENTAL RISKS

In manufacturing its products, the SMA group employs a small number of hazardous substances that might pose a risk to the environment. The comprehensive measures we take in production and in quality management principally ensure that SMA products are manufactured in a way that is environmentally friendly and guarantees compliance with all environmental regulations. Furthermore, the SMA group has safeguarded itself against certain environmental risks in the event of damage, including by means of insurance solutions.

Financial risks

LIQUIDITY RISKS

If there is an unexpected decline in the SMA group's cash holdings in the short term, there is a risk that external market participants, such as commercial credit insurance companies or banks, might downgrade the SMA group's credit rating which might impair its financing options. Furthermore, there is a risk that suppliers could adjust payment terms to the detriment of the SMA group, thereby burdening cash and cash equivalents. In particular, increased demand for products from the Large Scale & Project Solutions segment may continue to place a heavy strain on net cash as a result of naturally long project durations. The increased stockpiling of primary materials required due to procurement risks may also have a detrimental effect on net cash. The liquidity situation is constantly monitored and actively managed by means of effective financial planning systems. There is a particular focus on the management and optimization of working capital, supported by active monitoring of measures by the top levels of management.

For further information, please refer to the "Financial position" section.

INTEREST RATE AND CURRENCY RISKS

For the SMA group, currency risks arise in particular from the purchase and sale of products in foreign currencies (transaction risk) and from the measurement and settlement of items denominated in foreign currencies that are recognized in the balance sheet on the balance sheet date (translation risk). The main sources of transaction risks were business transactions in USD in the U.S. and the sales activities of other subsidiaries based outside the eurozone.

The SMA group's Global Treasury function manages currency risks and group financing on a centralized basis. The permissible hedging instruments were laid out by the Managing Board of SMA Solar Technology AG in group-wide guidelines that also regulate the entire process-oriented organization, including hedging strategies, responsibilities and control mechanisms. As an example, currency hedges were concluded to the required extent.

For additional details, please refer to the information under Financial Position in the "Principles and objectives of financial management" section.

DEFAULT RISKS

The volatile and sometimes difficult conditions of the financial markets are conducive to potential payment difficulties for some customers, particularly in newly industrialized countries. Furthermore, the competitive situation and internationalization require extension of payment periods, accompanied by the reduction of collateral (e.g., in the form of bank guarantees). If customers can no longer keep up with their payment obligations, there is a higher default risk for receivables with negative effects on the SMA group's results of operations, financial position and net assets.

As part of its accounts receivable management, the SMA group minimizes the risk of non-payment in accordance with the company's credit guidelines by obtaining references and credit reports beforehand for the purposes of a credit check of customers, allocating appropriate credit limits and continuously monitoring general payment practices. If it is expected that a credit limit is not sufficient for our future business relationship, then we examine whether we should ask the customer to furnish collateral or whether we can accept the residual risk. To cover potential payment defaults, the SMA group has also taken out commercial credit insurance. If non-payment risks materialize, these will be taken into account by means of corresponding impairment losses.

The Commercial Project Management at the locations in Germany, the U.S. and Australia represents another effective measure to avoid or minimize risk to the important project business. All project and service contracts entailing risks are systematically subjected to a legal and commercial risk assessment. Based on this, risky agreements are secured for the SMA group through additional financial securities or contractual adjustments made with both Sales and the customer. Remaining project risks are assessed and approved separately by the heads of the segments and, as the case may be, the Managing Board of SMA Solar Technology AG, provided these risks are proportionate to earnings.

Due to the bank guarantee for a loan to an associated company issued by SMA Solar Technology AG as part of its business activities, there is a risk that the payment obligation may be transferred to SMA Solar Technology AG if the associated company defaults. This risk is countered by closely monitoring the financial performance of the unit concerned.

Compliance risks

RISKS FROM VIOLATIONS OF THE LAW AND REGULATIONS

There is a risk that the SMA group could be involved in unlawful business conduct or that individual employees could violate laws, SMA's business principles or directives. In particular, this includes the risk of corruption and fraud.

The Governance & Compliance department thus issued business principles and directives globally. Basic work sequences and processes were derived from these and implemented worldwide. In the context of their work for the SMA group, all employees are obligated to act ethically and in accordance with the laws and regulations of the legal system of their country. These regulations and obligations are consolidated worldwide by mandatory, extensive training sessions on business principles.

Our goal is to minimize antitrust risks from the outset. To this end, antitrust policy of the Governance & Compliance department sets out clear rules of conduct for all relevant business situations. In addition, all employees in the areas affected must regularly receive antitrust law training.

With our patents and through constant monitoring of technologies and competitors relevant to the SMA group, we work to protect our technologies and innovations. Because competitors and research institutes also file a large number of patent applications, we cannot rule out that, in spite of regular, extensive and international research, we will not infringe on third-party patent rights or other industrial property rights or that, vice versa, our rights will be violated by third parties. If the former occurs, the SMA group may incur considerable costs related to claims for compensation, in its defense against such claims or in relation to royalty payments to third parties. It is therefore important to us that each product be checked for third-party rights in a timely manner before approval and market launch. Corresponding milestones are included in the guidelines and process descriptions on product development and market launch. The Corporate IP Management department actively protects proprietary technologies and monitors patent applications. We make provisions for disputes related to intellectual property when necessary, if we consider it likely that such claims might be asserted against us.

Due to its global business operations, the SMA group is subject to various tax laws and regulations. Tax changes in Germany and abroad could negatively affect the tax positions of SMA. In addition to legal changes, assessment and interpretation of complex tax regulations, such as those regarding transfer prices, may also affect our net assets, financial position and results of operations. The SMA group therefore collaborates closely with tax consultants in individual countries.

For additional details, please refer to our [website](#).

As a result of internationalization and the high international share of sales, there are increased risks for the SMA group from handling the import and export of materials and services as well as finished products. The SMA group must meet the legal requirements for imports from and exports to many countries to stay competitive and meet the needs of its international customers.

Violations of trade restrictions and customs laws are subject to significant penalties and could also damage the reputation of the SMA group. Therefore, the SMA group purposefully monitors its obligations under commercial and customs law using an IT system, which significantly reduces the risk of potential noncompliance.

The EU's General Data Protection Regulation gives rise to considerable organizational and technical requirements for data protection. The substantial fines for breaches of the data protection law represent a latent risk for the SMA group.

The SMA group counters data protection risks through systematic data protection management. In addition to standardized processes, this includes regular training for those employees who process personal data and monitoring of all projects where PV system operator's personal data is processed by the company's data protection officer.

Despite meticulously implementing requirements for processes and systems, violations of data protection law cannot be ruled out completely. The SMA group's digitalization strategy, in particular, extends the use of personal data, including for the company's business models. There are also additional risks in the increasingly widespread storage and processing of personal data through cloud services and the use of new digital sales channels.

In individual countries where the SMA group operates, there are different, sometimes complex regulations on the minimum wage. If the regulations are not fully adhered to by the SMA group, there is a risk of back payments of wages and fines due to violations of these regulations. The SMA group minimizes this risk by regularly checking and monitoring the relevant legislation and commissioning external consultants for preventive support.

RISKS FROM BREACHING CONTRACTS AND OBLIGATIONS

The SMA group is exposed to risks from legal disputes that may arise from its business activities. Legal disputes with suppliers, customers, employees and distributors can materialize, which can lead to contractual and legal claims for compensation or other such obligations. A sufficient level of provisions is set aside for potential financial damages resulting from legal disputes. The SMA group has also implemented preventive measures, such as taking out a professional indemnity insurance policy to cover liability claims from third parties. However, this does not rule out a situation in which the level of insurance cover is not sufficient for compensation claims that may arise in the future.

Risks can also arise from contractual performance commitments. In the event of an agreement on lump-sum compensation payments, the SMA group may be obliged to pay corresponding amounts in the event of nonperformance or poor performance.

Due to the exit from a long-term contract for operation and maintenance (O&M) services for PV power plants for a contractual partner's solar portfolio, certain fulfillment and contractual penalty risks remain for the SMA group. For additional details, please refer to the information under "Sales and earnings" and "Sales and earnings per segment" in the "Results of operations" section.

IT risks

IT SECURITY RISKS

As a technology company and publicly traded stock corporation, SMA Solar Technology AG and the SMA group are in the public eye and therefore heavily under threat of industrial espionage and cybercrime. Threat scenarios have become significantly more intense, especially as a result of the current geopolitical crises and more focused and evolved methods of attack. In addition, growing connectivity is placing ever-greater demands on our IT systems, which need to be high-performance, highly available and stable to support global business processes. We reduce the risks of IT breakdowns by continually reviewing and improving IT security and employing advanced hardware and software solutions. We use protective measures at all levels of the company to avert this. To minimize the risk of data losses, the SMA group implements appropriate measures, including regularly building employee awareness, mirrored databases and the use of cloud solutions. All major IT systems are also continuously monitored by a security operations center and regularly patched. Networks are protected, in particular, through the use of up-to-date, highly effective firewalls and e-mail systems through cutting-edge filters to avoid potential loss or manipulation of data by employees or service providers and external attacks besides securing network and server availability.

Attack vectors (number, intensity and quality) in IT security increased, partly as a result of the current geopolitical situation. These risks are now assessed as being higher than in the previous year.

PRODUCT CYBERSECURITY RISKS

In an extremely networked world in which the SMA group's products, solutions and services are also being connected, the cybersecurity of our products and the digital services we supply is a top priority. To ensure a high level of cybersecurity for SMA products and services, there are specific guidelines for the product development process, and extensive tests are carried out before and after market launch. Despite these state-of-the-art security measures, a situation cannot be ruled out in which products and services of the SMA group are compromised by a massive targeted hacker attack. The impact of an incident like this on the SMA group's reputation and sales situation could be significant.

Personnel-related risks

PERSONNEL RECRUITMENT RISKS

Qualified and motivated employees are key to the global evolution of our enterprise and the business success of the SMA group. Due to natural staff turnover and reorganization measures, there is a frequent need to recruit new skilled employees and managers and to fill positions with suitable candidates. Flexible personnel deployment models and temporary employees are used to cover peaks in demand. Despite there being a structured personnel recruitment strategy in place, there is a risk that positions cannot be filled quickly enough or at all by suitable permanent or temporary employees. This can lead to delays in the processing of key projects or a reduced capacity to manufacture and deliver products and provide services. Current legislation on temporary work in Germany and Europe is also limiting flexibility during peak times.

The SMA group is continuously working on its image as an attractive employer, which enables it to bring on board highly qualified employees. It particularly achieves this by setting relevant strategic objectives, implementing contemporary leadership approaches and enhancing its employer branding.

PERSONNEL RETENTION RISKS

To ensure the viability of the SMA group, it is important to retain highly qualified employees, such as skilled employees and managers, at the company for the long term.

However, there is a risk that talented individuals could leave the company and that strategic positions (key positions) may not be able to be filled on short notice, either at all or by someone with the necessary qualifications. To minimize this risk, we are continuously optimizing our offerings, including performance-based remuneration systems and participation in the company's success, flexible working hours and options for continuing education and training as well as for balancing family and career. In addition, the Managing Board of SMA Solar Technology AG continuously monitors personnel structures and, if necessary, adapts them to the sales level expected in the future.

Opportunities

OPPORTUNITIES FROM BUSINESS ACTIVITY

As a result of the current geopolitical situation in connection with the trend toward climate-friendly legislative and association initiatives in a national and international context, we anticipate positive momentum for our business activities and thus for the SMA group's products, systems and solutions due to the sharp focus on climate protection and the expansion of renewable energies.

The SMA group sees digitalization, system and solution business, storage applications and integration of storage solutions as providing distinct opportunities to strengthen core business. The SMA group is continuously developing digital business models and system solutions and will keep working to launch them as well as cooperating with selected strategic partners.

In the future fields of power-to-gas (using electrolysis to generate hydrogen as an energy carrier), charging infrastructure for electric vehicles, integrated energy and energy market integration, the SMA group sees further pioneering opportunities for sustainable sales and earnings growth. This potential can be used by the SMA group alone or in collaboration with strategic partners.

Furthermore, there are opportunities for development of additional international markets in both product and service business. The SMA group will continue to use and expand its international presence in order to benefit from foreign markets in particular.

Based on the current market situation and the associated beginnings of market consolidation that has already begun, the SMA group also sees opportunities coming from additional demand stimulus and gains in market share from competitors who have gone out of business.

For more information on the SMA group's opportunities, please see the remarks in the [Forecast Report](#).

OPPORTUNITIES FROM COST SAVINGS

The SMA group sees the opportunity to realize potential savings by optimizing the internal production process for certain product groups, for example by streamlining and shortening process lead times.

OPPORTUNITIES FROM IMPROVED PROCESSES

The progressive digitalization of internal business processes and workflows creates the opportunity to achieve productivity increases in the administrative and sales areas with a positive contribution to earnings.

Individual analysis of climate-related risks and opportunities

In this section, the climate-related risks and opportunities classified as significant are described. All risks and opportunities that are classified as A or B according to the table "Assessment system for climate-related risks and opportunities" are designated as significant.

In the short to medium term, there is still a risk of production and delivery delays if natural disasters occur more frequently as a result of climate change and cause suppliers' production facilities to be temporarily or completely shut down. This risk can be reduced to a limited extent by means of a multi-supplier strategy in procurement and an adjusted stockpiling strategy.

As a result of climate change, the appeal of the solar industry is growing further. Solar power is becoming increasingly important for climate-friendly power generation. Due to this positive outlook, the competitive situation could intensify in the short to long term, entailing a risk of the emergence of additional competitors that could start operating in some or all of the SMA group's business fields and participate in this attractive market. The SMA group counters this risk by conducting regular market research and continuously developing its portfolio of products and services.

Due to the appeal of the PV market, the increased development of technologies to combat climate change, and the associated higher demand for the raw materials and components required, there is also a risk in the short to medium term of increasing interruptions and delays in supply chains, meaning that certain electronic components, other components and raw materials may not be available in time or in the quantities needed to meet the requirements in production or in service business. This risk is countered by means of adjusted procurement strategies.

Due to potentially stricter or newly introduced climate-related regulatory requirements and restrictions, such as those relating to greenhouse gas emissions and the relevant reporting, there is a risk of increased costs for the SMA group in the medium term.

If customers or individual markets place more demanding requirements in their tenders for sustainable products or production methods for reasons of climate protection, there is a short-term risk that the SMA group will not immediately be able to meet these requirements and will therefore not be able to participate in such tenders.

Should raw materials, components or energy produced in a carbon-neutral manner be procured by the SMA group on a voluntary or mandatory basis for reasons of climate protection, there is a short- to medium-term risk that the supply will not be available or that increased procurement costs will be incurred.

Based on its business model and corporate strategy, the SMA group is subject not only to climate-related risks, but also to a number of climate-related opportunities.

Due to climate change, there is an opportunity in the short to long term to tap new markets with innovative products (diversification strategy), such as the sustainable future technology of power-to-gas and the electrification of additional sectors such as heating and mobility, or to develop new, attractive products and solutions for existing markets, such as storage solutions. The high reputation of the SMA brand is crucial to ensure that the SMA group's products and solutions are as well received as possible by the markets.

In addition, the SMA group endeavors to promote the development of sustainable solutions in all areas of the company and to take a leading role in climate protection. There is thus a short- to long-term opportunity to develop and exploit additional business potential by increasing the SMA group's sustainability performance and its positioning as a sustainable company.

In the short to long term, the SMA Solar Technology AG Managing Board sees an opportunity for demand for solar energy to increase in many regions. This is due to increasing political, regulatory and social incentives to reduce greenhouse gas emissions, as well as the trend or global need to gradually replace fossil fuels with renewable energy sources, such as solar energy, while keeping the cost of photovoltaics competitive. This also applies to regions that previously had no cost incentives for solar expansion. However, the implementation of the expected higher demand depends on the speed and scope of the implementation of national energy and climate protection plans.

The Managing Board of SMA Solar Technology AG also sees a long-term opportunity to expand its repowering business gradually. This particularly relates to the replacement of inefficient or defective old devices, which will be subjected to greater stress due to the expected rise in temperature as well as the increase in weather extremes, with new devices or replacing existing devices with higher-performance product generations.

In the medium to long term, there is a chance that the political willingness of Germany and the other European Union member states will force or accelerate the transformation to a carbon-neutral region and that the SMA group will advance to become a systematically important company as a result. As the importance of sustainability and climate protection in investment decisions will increase due to climate change, the sustainability initiatives of the SMA group can facilitate access to the capital market and improve financing opportunities in the medium to long term.

As a result of the expected increase in government funding and innovation programs in the research and development of technologies relating to climate protection, there is a medium- to long-term opportunity for new innovations to make their way into SMA products and services via cooperation with research institutions and universities and for development costs to be reduced.

For more information on the opportunities arising for the SMA group in connection with climate change, please see the remarks in the [“Future general economic conditions in the photovoltaics sector”](#) section of the Forecast Report.

Overall statement on the group’s risk and opportunity situation

Using our risk and opportunity management system, we continue to rate the overall situation regarding risks to the SMA group’s future development as manageable and controllable. Based on the current assessment, however, individual risks can be identified that could significantly impair business development, particularly if they all occurred at once.

On the whole, the overall risk for the SMA group has slightly decreased in comparison to the previous year. However, there is still uncertainty surrounding the further economic consequences of the coronavirus pandemic, high inflation rates and the impact of the ongoing war in Ukraine and the associated global consequences. In particular, the war in Ukraine could lead to further risks, such as additional disruptions in the supply chain. It is currently not possible to make a reliable assessment.

According to the current assessment of the SMA Solar Technology AG Managing Board, though, there is no indication that the reported risks, individually or in their entirety, could endanger the continued existence of the group.

The increasing digitalization of our business areas, the system and solution business and the ongoing internationalization of sales activities are expected to make a significant contribution to raising the sales level and to strengthening profitability.

Our goal is to continuously optimize the risk and opportunity management system to always identify potential risks early on, counteract them effectively and make optimum use of any opportunities that arise.

FORECAST REPORT

Preamble

The forecasts of the Managing Board of SMA Solar Technology AG include all factors with a likelihood of impacting business performance that were known at the time this report was prepared. Not only general market indicators but also industry- and company-specific circumstances are factored into the forecasts. All assessments cover a period of one year from the balance sheet date.

The general economic situation

2023 will be another difficult year for the global economy

The global economy slowed down across the board and more sharply than expected in 2022, and inflation is the highest it has been in several decades. High energy and living costs, rising interest rates, war in Ukraine and the continuing impact of the pandemic are weighing heavily on the outlook. In the most recent update to the World Economic Outlook from January 2023, the experts at the International Monetary Fund (IMF) calculated a global growth rate of 3.4% for 2022.

Despite the continuing uncertainty, the IMF does not anticipate a global recession for 2023. However, at the same time, the experts emphasized that growth will slow down again compared with 2022. In this context, the IMF is forecasting global economic growth of only 2.9% in 2023. The forecast is the weakest in around 20 years, with the exception of forecasts during the 2020 pandemic and the 2009 financial crisis. For the IMF experts, the decisive factor in further development is whether inflation will drop as a result of tighter monetary policy.

For industrialized countries, the IMF economists anticipate growth of only 1.2% in 2023 (2022: 2.7%). By contrast, they forecast stable growth of 4.0% for developing and newly industrialized countries (2022: 3.9%). Due to the tight interest rate policy, a weaker year-on-year growth of 1.4% is predicted for the U.S. in 2023 (2022: 2.0%).

Although there are signs of the energy crisis having passed its peak, Europe remains severely impacted by the negative implications of the war in Ukraine. The IMF therefore expects the eurozone to grow by only 0.7% in the current year (2022: 3.5%). According to the IMF, the Chinese economy grew by 3.0% in 2022 and could again prove to be a driver of the global economy in 2023. The reason behind this is the country's reopening by moving away from its zero-COVID policy. The IMF's growth expectation for the current year 2023 is therefore 5.2%. However, the economic recovery could grind to a halt if the economy in China weakens more substantially than anticipated as a result of intense waves of coronavirus or further deterioration in the real estate sector.

According to the IMF, the prospects for the global economy are better than originally expected on the whole, even if it does continue having to contend with high interest rates and the war in Ukraine. The tighter monetary policy of the central banks is beginning to take effect. The IMF anticipates inflation of 6.6% in 2023. Despite that, the global economy is only just beginning a full-scale recovery, with lasting growth and stable prices.

Future general economic conditions in the photovoltaics sector

Solar energy to become largest source of energy supply¹

The fight against climate change is now one of the most central issues in the public, politics and economics. The global Fridays for Future movement and, more notably, unusual weather phenomena, such as severe storms, heat waves, droughts and flooding in various regions of the world, not to mention the unprecedented bushfires in South Europe, Australia and the U.S. in the past two years, have helped raise the profile of this issue.

¹ Source: IEA "Net Zero by 2050 – A Roadmap for the global Energy Sector"

Greater efforts to expand renewable energies are widely regarded as the central pillar in the response to climate change. Politicians are taking account of this with action plans such as the “European Green Deal” to achieve climate neutrality within the EU in 2050 and by appointing top-class teams of experts to tackle climate change, like the U.S. government is doing. These attitudes will expedite expansion of renewable energies over the coming years and decades. The experts at the analysis company Wood Mackenzie describe the solar industry as “highly investable” because it is increasingly able to meet both economic and political targets.

The experts at the International Energy Agency (IEA) emphasize the major role of solar energy in combating the climate crisis: In their “Net Zero by 2050 – A Roadmap for the Global Energy Sector” study, they explain that by 2050 the global energy supply will need to be based largely on renewables, with solar energy as the single largest source of supply. The experts at the Potsdam Institute for Climate Impact Research (PIK) forecast that green electricity could cover three-quarters of global energy use in the long term, given a consistent climate policy.

In this context, the electrification of other sectors, such as mobility and heat, and the production of green hydrogen will additionally drive electricity demand as further important elements in achieving climate protection targets. In its “Energy Transition Outlook 2022,” the consulting company DNV predicts that electricity’s share of global total energy demand will almost double from 19% to 36% within the next 30 years. By 2050, experts estimate that solar and wind energy together could account for 69% of grid-connected power generation, with solar energy alone accounting for 38%. Connectivity, storage and demand response would be critical factors in a decarbonized power system.

According to Bloomberg New Energy Finance’s New Energy Outlook 2022, global CO₂ emissions will need to drop by an average of 6% per year to realize the goal of global carbon neutrality by 2050. Decarbonizing the power sector will require such actions as trebling the current level of new PV capacity installations. Global investment in climate-friendly technologies for power generation and storage would need to increase to a total of about \$35 trillion to achieve the goal of carbon neutrality by 2050.

Along with climate change targets, further decreases in its costs are contributing to the anticipated rapid growth of solar and wind energy. According to the PIK, the cost of solar power generation has fallen by 85% over the past ten years alone and further cost reductions can be expected in the future thanks to rapid technological progress. The experts at Bloomberg New Energy Finance classify newly installed wind or PV power plants to be already the most cost-effective form of electricity generation in almost all major markets. These markets cover two-thirds of the world’s population, about 77% of global GDP and 91% of total power generation. Moreover, in a growing number of countries, including China, India and a large part of Europe, it is now more cost-effective to build new renewable energy capacity than to operate existing coal- and gas-fired power plants.

In addition to the ever-decreasing consumer cost of electricity from PV systems and decentralized generation in the vicinity of residential, commercial and industrial consumers, the combination with storage systems makes photovoltaics particularly attractive. DNV’s experts see photovoltaics combined with battery-storage systems as a separate power plant category that can supply electricity reliably and on demand, just like conventional power plants. According to their projections, combined PV and storage power plants will have a storage capacity of more than 20 TWh by 2050, accounting for around two-thirds of the world’s electricity storage capacity.

In the energy system of the future, cutting-edge communication technologies and services for cross-sector energy management will represent key building blocks for the modernization and expansion of the power grid infrastructure. In its World Energy Outlook 2022, the IEA states that, in conjunction with the increasing electrification of the transportation and heating sectors through renewable energies, modern utility grids and smart energy management, there is great potential to sustainably reduce both the high cost of electricity and CO₂ emissions.

The SMA Managing Board is therefore convinced of the market appeal and has thus positioned SMA to ensure it benefits from future developments in the fields of photovoltaics and storage technologies as well as in the markets for e-mobility, digital energy services and green hydrogen production, which experts are predicting will experience exponential growth in the future.

Global new PV installations increase to more than 220 GW

The Managing Board of SMA Solar Technology AG anticipates growth in newly installed PV power worldwide to approximately 220 GW to 242 GW in 2023. The growth is expected to be driven by all regions. The Managing Board of SMA Solar Technology AG estimates that global investments in system technology for traditional photovoltaic applications will increase by around 16%. Investments in system technology for storage applications (excluding investments in batteries) will rise by approximately €170 million to €190 million compared to the previous year. Overall, the Managing Board of SMA Solar Technology AG therefore expects investments in PV system technology (including system technology for storage systems) of around €10.8 billion to €11.6 billion in 2023 (2022: €9.2 billion to €10.0 billion). The expected market development is subject to further easing in the supply situation for electronic components as well as decreasing challenges in supply chains around the world in connection with the global retreat of the coronavirus pandemic.

Considerable increase in demand in the EMEA region

The Managing Board of SMA Solar Technology AG anticipates a significant increase in newly installed PV power to around 55 GW to 58 GW in the Europe, Middle East and Africa (EMEA) region in 2023 (2022: 45 GW to 47 GW). In addition to growth in the countries in the Middle East and Africa, this is also due to the positive development in European markets, such as Germany, Benelux and Spain as well as in East European markets. According to SMA estimates, investments in PV and storage system technology will slightly grow to approximately €3.5 billion to €3.7 billion (2022: €2.9 billion to €3.1 billion). The investment strategies adopted in Europe, such as REPowerEU, and an announced industrial strategy aimed at subsidizing various clean tech sectors are expected to act as major driving forces behind further growth in European photovoltaic markets in the medium term. In Europe, new programs for targeted support for climate change mitigation technologies (e. g., REPowerEU) are creating new investment incentives. The photovoltaic market is expected to benefit significantly from this in the medium term.

Battery-storage systems are gaining importance in European countries, especially in Germany, the UK and Italy. In addition to business involving new systems for consumption of self-generated energy, retrofitting of existing systems with new inverters and storage systems will yield high potential in the medium term. For more and more PV systems, government subsidization will end in the years to come. Self-consumption of solar power is a particularly attractive option for the operators of these systems.

Americas region continues to grow

For the Americas region, the Managing Board of SMA Solar Technology AG anticipates growth in newly installed PV power to approximately 40 GW to 43 GW (2022: 31 GW to 33 GW). Roughly between 27 GW and 29 GW of this amount is attributable to the North American markets. The Inflation Reduction Act (IRA) passed by the U.S. Congress in August 2022 includes a long-term extension of the Investment Tax Credit (ITC) for PV systems and will create significant overall investment incentives for climate change mitigation technologies. The photovoltaic market is also expected to benefit significantly from these positive factors in the medium term. Inverter technology investments are expected to increase to around €3.0 billion to €3.2 billion in the Americas region (2022: €2.6 billion to €2.8 billion).

Investments in Asia-Pacific region increase again

The most important markets in the APAC region include China, India, Japan and Australia. In Japan and Australia, the installation of PV systems combined with battery-storage systems to supply energy independently of fossil energy carriers offers additional growth potential. The Managing Board of SMA Solar Technology AG estimates that new PV installations in China will increase to 83 GW to 86 GW in 2023 (2022: 79 GW to 81 GW). Investments in inverter technology are expected to rise to approximately €2.2 billion to €2.4 billion (2022: €2.0 billion to €2.2 billion). For the APAC region, excluding China, the Managing Board anticipates newly installed PV power to grow to around 42 GW to 45 GW in 2023 (2022: 37 GW to 39 GW). This growth is in particular attributable to the positive development in India. The Managing Board expects slightly increasing investments of approximately €2.1 billion to €2.3 billion in inverter technology for the region as a whole (2022: €1.7 billion to €1.9 billion).

Growth markets: energy management, digital energy services and operational management

The trend to decentralize power supplies is progressing. More and more households, cities and companies are becoming less dependent on energy fuel imports and rising energy costs by having their own PV systems. This will lead to a rise in demand for energy storage solutions in the residential, commercial and industrial sectors. In addition, energy will be increasingly distributed via smart grids to manage electricity demand, avoid consumption peaks and take the strain off utility grids. E-mobility is also expected to

become an essential pillar of these new energy supply structures. Integration of a prospectively large number of electric vehicles will help increase self-consumption of renewable energies and offset fluctuations in the utility grid. Using artificial intelligence, the behavior of decentralized energy consumers and storage systems can be adapted to the fluctuating production of electricity from renewable energies, thus enabling the overall system to be optimized.

In this context, the Managing Board of SMA Solar Technology AG holds that innovative system technologies that temporarily store solar power and provide energy management to private households and commercial enterprises offer worthwhile business opportunities. Rising prices for conventional domestic and commercial power and many private households and companies wanting to drive forward the energy transition by making their contribution to a sustainable and decentralized energy supply are the basis for new business models. Demand for solutions that increase self-consumption of solar power is likely to continue to rise, particularly in European markets, the U.S., Australia and Japan. In these markets, renewable energies are already taking on a greater share in the electricity supply. In addition, electric utility companies are increasingly using battery-storage systems to avoid expensive grid expansions, stabilize grid frequency and balance fluctuations in the power feed-in from renewable energy sources. The Managing Board of SMA Solar Technology AG expects the still fairly new storage market to grow to approximately €1.4 billion to €1.6 billion in 2023 (excluding investments in batteries). Estimated demand is already included in the specified development projections for the entire inverter technology market.

In addition to storage technology, digital energy services aimed at optimizing household and commercial enterprises' energy costs and their connection to the energy market are becoming increasingly significant. The Managing Board of SMA Solar Technology AG expects this area to represent an addressable market of approximately €2.0 billion in 2023. The market will record strong growth in the medium and long term.

Technical management of commercial PV systems and large-scale PV power plants is another growth segment. This includes a range of services, such as repairs and device replacements as well as visual inspections and maintenance of entire systems. The market in these segments had an accumulated installed capacity of over 960 GW at the end of 2022 and will have an expected capacity of more than 1,100 GW by the end of 2023. The Managing Board of SMA Solar Technology AG estimates the addressable market share, which is not yet or no longer under contract, at more than 220 GW in 2023, which corresponds to a potential of approximately €1.2 billion. Prices are calculated yearly per MW and vary significantly depending on the regions and services included.

Overall statement from the Managing Board of SMA Solar Technology AG on expected development of the SMA group

Strong increase in sales and earnings performance thanks to improved delivery capacity and new process organization

On March 9, 2023, the Managing Board of SMA Solar Technology AG published its sales and earnings guidance for the 2023 fiscal year. It predicts sales of between €1,350 million and €1,500 million for the SMA group (ACTUAL 2022: €1,065.9 million). The Managing Board estimates that operating earnings before interest, taxes, depreciation and amortization (EBITDA) of the SMA group will amount to between €100 million and €140 million in 2023 (ACTUAL 2022: €70.0 million). The planning is based on the Managing Board's assessment that the positive trend in sales and earnings that began in the second half of 2022 will continue in the current 2023 fiscal year. In addition to the very high level of incoming orders, the Managing Board believes that the supply situation for electronic components will gradually ease over the coming year and thus further improve the SMA group's delivery capacity. This is based on numerous positive discussions with suppliers who have confirmed an improvement in their production capacities.

In addition, the SMA group is working at pace on the implementation of its company-wide SPIRIT program, which was launched in 2022. The aim is to systematically bring processes and structures in line with the various customer segments and design them in such a way that SMA can develop and deliver even faster, more seamlessly and in a more demand-oriented manner. It is thus possible to align our portfolio of systems and solutions even more precisely to the current and future requirements of the various customer segments. Operational business responsibility in the segments will also be significantly strengthened and decision-making processes made faster. For 2023, we have set ourselves the objective of implementing the new understanding of roles and processes throughout the company and laying a stable foundation for the new process organization. Further information on the strategy and the SPIRIT program can be found in the ["Basic information about the group"](#) section.

Depreciation and amortization are expected to come to approximately €45 million in 2023. The Managing Board of SMA Solar Technology AG anticipates an EBIT of between €55 million to €95 million. In 2023, capital expenditure (including capitalized development costs and lease investments) will be approximately

€85 million and thus above the level of 2022 (ACTUAL 2022: €65.8 million). The SMA group is investing in the future to benefit from the significant potential arising from the megatrends of decentralization, decarbonization and digitalization of the energy supply worldwide, and is developing highly integrated and digitalized solutions that precisely meet the resulting requirements. Against this background, investments, especially in new products, land and buildings, technical equipment and machines, as well as the capitalization of research and development expenses are planned for 2023.

For details regarding risks, please refer to the Risks and Opportunities Report.

SMA group guidance for 2023 at a glance

Key figure	Guidance 2023	Actual 2022
Sales in € million	1,350 to 1,500	1,065.9
Inverter output sold in GW	15 to 17	12.2
EBITDA in € million	100 to 140	70.0
EBITDA margin in % of sales	7.4 to 9.3	6.6
Capital expenditure in € million	approx. 85	65.8
Net working capital in % of sales	20 to 23	22.4
Net cash in € million	approx. 200	220.1
EBIT in € million	55 to 95	31.9
EBIT margin in % of sales	4.1 to 6.3	3.0

The SMA group's sales and earnings depend on global market growth, market share, price dynamics and the supply of electronic components. Our global presence and our comprehensive portfolio of products and solutions for all segments (Home Solutions, Commercial & Industrial Solutions and Large Scale & Project Solutions) enable us to respond quickly to changing market conditions, offset fluctuations in demand and take advantage of developments in global photovoltaic and storage markets. Its broad product and solution portfolio in all market segments is a major distinguishing feature for the SMA group. The Managing Board of SMA Solar Technology AG forecasts the performance for individual SMA segments in the current 2023 fiscal year as follows:

Segment guidance for 2023 at a glance

Segment	Sales	EBIT
Home Solutions	Up significantly	Up
C&I Solutions	Up significantly	Up significantly
Large Scale & Project Solutions	Up significantly	Up significantly

Forecast for most significant non-financial performance indicators

Holistic sustainability in all areas of the company is one of the key objectives at the heart of the SMA Strategy 2025. The Managing Board of SMA Solar Technology AG is thereby not only underlining the considerable importance of the topic of sustainability within the SMA group, but also taking account of the ever-increasing interest and expectations of major stakeholder groups.

The Supervisory Board has taken the strategic importance of attaining the SMA group's sustainability targets into account by incorporating the "target of women representing 26% of the total workforce by 2025" and "target of 100% assessment of the sustainability performance of A and B suppliers by 2025" performance indicators into the performance-related remuneration targets for the Managing Board. The proportion of the total workforce accounted for by women reached 26.4% as of December 31, 2022. The guidance for the end of 2023 is 27.4%. This guidance assumes that the good progress seen in the reporting year will continue and that the action and initiatives already begun in 2023 will be intensified and deliver to their full potential. With regard to assessing the sustainability performance of A and B suppliers, coverage was at 50.0% at the end of the reporting year. Coverage of 55.0% is anticipated for the end of 2023. The Sustainability Board Committee, which comprises members of the Managing Board, top-level managers and experts from the Global Communications & Sustainability function, reviews the extent to which sustainability targets have been achieved once every quarter.

Strategic areas of action strengthen long-term competitiveness

After overcoming the shortage of components, the Managing Board of SMA Solar Technology AG sees excellent growth prospects for the SMA group. Significant impetus will be generated by the anticipated continuing positive development of the global PV market and by growth in major future fields such as storage systems, e-mobility, digital energy services and green hydrogen. With its Strategy 2025, its global presence with experts in 20 countries on six continents and products and solutions, the SMA group is well positioned to benefit from this market growth and consolidate its market position. The ongoing development of the portfolio into a system landscape for decentralized energy supply is progressing steadily.

The goal of the SMA Strategy 2025 is to develop the SMA group into an innovative and sustainable “energy transition company” that offers appropriate solutions for all essential areas of future energy supply. We are leveraging our systems expertise to develop complete, future-proof solutions of significant customer benefit in close collaboration with our strong partners and to tap into new business areas.

SMA group will reap the benefits of megatrends

The expansion of renewable energies and storage systems and the electrification of other sectors, such as mobility, heating and air-conditioning will further accelerate the increased fight against climate change and the striving for an energy supply that is largely independent from imports of raw materials. At the same time, there will be a further continuation of the global PV market consolidation, which has already started. This is releasing market shares and is also expected to slow down the decline in prices of PV inverters over the coming years.

The SMA group is well positioned to benefit from these trends in all market segments and regions. With our products and solutions, we actively contribute to combating the global climate crisis. In addition, we have an international sales and service organization and decades of experience and technological expertise in all PV and storage applications as well as key future fields for energy supply. Our total installed inverter output of approximately 126 GW worldwide is a particularly good foundation for data-based business models, as valuable energy data can be compiled by the inverter. Our extensive knowledge of managing complex battery-storage systems and linking solar power systems to other energy sectors, such as heating, ventilation and cooling technology as well as e-mobility, is an excellent basis for developing future growth potential for digital energy solutions. In addition, the SMA group has already positioned itself in the high-margin business field of green hydrogen production, which is expected to see strong growth in the future. In the reporting period, the Electrolyzer Converter for the grid-friendly processing of electricity for electrolysis was launched on the growing market. We will continuously expand our range of solutions for optimized hydrogen production.

SMA group will take advantage of the potential of digitalization¹

Thanks to its extensive knowledge and experience in PV system technology, the ability to quickly implement changes, alignment of the subsidiaries toward future business areas and its numerous strategic partnerships, the SMA group is well prepared for the digitalization of the energy industry and will take advantage of the opportunities that it yields. As a specialist in holistic solutions in the energy sector, we will help shape the energy supply of the future, launch a number of innovations and establish further strategic partnerships as part of our centralized and focused partner management. In the process, we will build on our strengths to design additional system solutions for the conversion to a cost-effective, reliable and sustainable energy supply that is based on decentralized renewable energy. We will be helped in this endeavor by SMA's corporate culture and our motivated employees who make a decisive contribution to the company's long-term success and are therefore also given a share in the SMA group's financial success.

¹ The following section is not a mandatory component of the combined management report as defined in Sections 289, 315 HGB in conjunction with GAS 20, and therefore not a subject of the financial audit.

CORPORATE GOVERNANCE

Corporate Governance Report¹

In this declaration, SMA Solar Technology AG reports on its corporate governance principles in accordance with Section 289f (1), (2) and 315d of the German Commercial Code (HGB) and on corporate governance in the company in accordance with Section 161 of the German Stock Corporation Act (AktG) and clause 23 of the German Corporate Governance Code (DCGK). The declaration includes the Declaration of Compliance, information on corporate governance practices, which comprises information on where they can be accessed by the public, as well as information on the composition and description of the function of the Managing Board, Supervisory Board and respective committees and material corporate governance structures.

Complying with the principles of good corporate governance is extremely important to SMA Solar Technology AG. The company is guided by the recommendations and suggestions in the German Corporate Governance Code (DCGK). The Managing Board and Supervisory Board dealt with meeting these requirements. The company declared emergent deviations from the German Corporate Governance Code in the Declaration of Compliance of December 13, 2022. This declaration is reproduced below and published on our [website](#).

Declaration of compliance with German Corporate Governance Code

In accordance with Section 161 of the German Stock Corporation Act, the Managing Board and Supervisory Board of SMA Solar Technology AG declare:

SMA Solar Technology AG follows all recommendations of the version of the German Corporate Governance Code dated April 28, 2022 ("2022 Code"), as announced by the Federal Ministry of Justice and Consumer Protection in the official section of the Federal Gazette on June 27, 2022, and will continue to pursue them in the future, with the following exceptions:

The remuneration system for the Managing Board approved by the Supervisory Board and at the Annual General Meeting on June 1, 2021, which is to form the basis for all remuneration agreements with members of the Managing Board of SMA Solar Technology AG who are appointed or re-appointed after January 1, 2021 ("2021 remuneration system"), diverges from recommendation G.8 of the 2022 Code in allowing for the opportunity to deviate from target values or reference parameters that have already been approved if this should temporarily be in the interest of the company in exceptional situations. The Supervisory Board considers that such flexibility is necessary to be able to respond appropriately to unforeseen situations, including in accordance with recommendation G.11, sentence 1 of the 2022 Code.

The 2021 remuneration system also envisages an obligation on the part of the Managing Board to invest some of the remuneration component obtained as a result of long-term and short-term variable targets being surpassed in shares in the company, which diverges from recommendation G.10, sentence 1 of the 2022 Code. The Supervisory Board holds that the remuneration arrangements and obligation to invest adequately commit the Managing Board to the long-term and sustainable development of the company and that there is no need for any further obligation in accordance with recommendation G.10, sentence 1 of the 2022 Code.

Contrary to recommendation G.11, sentence 2 of the 2022 Code, the 2021 remuneration system does not stipulate any regulations beyond what is required by law that would give the company the option to retain or reclaim any variable remuneration owed to the Managing Board. The Supervisory Board takes the view that the Managing Board would already have a sufficient stake in any negative developments due to the arrangements for objectives, particularly with regard to variable remuneration, and that any legally reproachable conduct can be adequately sanctioned by means of the possible responses allowed for by law.

Niestetal, December 13, 2022

¹ The following section is not a mandatory component of the combined management report as defined in Sections 289, 315 HGB in conjunction with GAS 20, and therefore not a subject of the financial audit.

Corporate governance practices

With the purpose “Our energy inspires the world’s most important customer. Our future,” the SMA Strategy 2025 comprises a forward-looking vision and mission, the values that all SMA employees align themselves with and clear strategic objectives for the next years. It has been presented to all employees worldwide and forms the strategic framework for action of the SMA group. Further details can be found in the “Strategy” section under “Basic information about the group.”

Furthermore, in 2011, SMA had already made a declaration to the General Secretary of the United Nations to adopt the ten principles of the UN Global Compact as compulsory guidelines for its corporate governance. The principles of the UN Global Compact define standards for upholding human rights, the protection of workers’ rights, environmental protection and avoidance of corruption. They can be viewed on the website at www.unglobalcompact.org. In addition, the SMA group is committed to the “Business Principles for Countering Bribery” of Transparency International.

In 2022, the Managing Board of SMA Solar Technology AG further revised the SMA business principles, which came into effect in 2012, aligning them with the sustainability objectives set out in the Strategy 2025. The SMA business principles are the core of the compliance management system and shape SMA’s values into clear behavioral standards. The SMA business principles are obligatory for all SMA employees worldwide. They underscore the company’s desire to fully implement and comply with all legal and regulatory requirements. The SMA group also undertakes to act ethically, sustainably and with integrity at all times to assume its corporate responsibility and treat others with respect. The SMA business principles set out in the Employee Code of Conduct are publicly available on [SMA’s corporate website](#).

Since 2009, the SMA group has also already recognized the code of conduct of the German Association for Supply Chain Management, Procurement and Logistics (BME e. V.) and used this as the basis for its own guidelines for suppliers (SMA Supplier Code of Conduct). In 2020, the SMA Supplier Code of Conduct was revised with the involvement of stakeholders and newly implemented under the name SMA Business Partner Code of Conduct. This continues to commit the SMA group to fair dealings with suppliers. The guidelines are based on, among other things, the UN Global Compact, the conventions of the International Labour Organization (ILO) and the United Nations’ Universal Declaration of Human Rights. The SMA group’s objective is to enshrine general principles with regard to fairness, integrity and corporate responsibility in business relationships and the supply chain. For

the SMA group, these behavioral guidelines also complement its mission statement and corporate culture, in which fairness, integrity, sustainability and corporate responsibility are deeply rooted. In addition to these guidelines, the SMA Business Partner Code of Conduct prescribes standards for sustainable activity and gives expression to what the SMA group expects of suppliers and business partners with regard to social, ecological and ethical issues. The key points of the guidelines are a ban on child labor, forced labor, abuse and discrimination of employees, fighting against corruption, fair working conditions, occupational health and safety, environmental protection, and quality and product safety. The BME’s code of conduct is accessible on its website at www.bme.de. The latest version of the SMA Business Partner Code of Conduct is reproduced on the [SMA website](#).

In compliance with the provisions of Section 76 (4) sentence 2 AktG, in 2017, the Managing Board resolved to set a target of 8% for the proportion of female employees in the first management level below the Managing Board and 14.6% for the second level by June 30, 2022. The targets complied with the current ratio of genders at both management levels as of the date of the resolution. At 7.7%, the quota for the first management level was slightly below the target figure at the end of the reporting period. This was due to a slight increase in the number of employees at the first management level. At 15.7%, the quota for the second management level was above the target figure. Furthermore, the Managing Board has set the target to achieve to 20% for the period from July 1, 2022, to June 30, 2027. This newly defined target applies to all aforementioned management levels combined. At the end of the reporting period, the proportion of female employees working in the first two management levels combined was 14.5%.

Transparency

Transparency is a key element of good corporate governance. Our aim is to provide all shareholders, financial analysts, media and interested members of the public at large with timely information about our business situation and significant corporate changes. All important information is also made available on our [website](#). Reporting on the business situation and the operating results takes place in the Annual Report, in the annual press conference on financial statements and in the Quarterly Statements and Half-Yearly Financial Reports. Furthermore, the public is informed through press releases, via social networks and, if stipulated by law, by means of ad hoc statements. In addition, once a year SMA invites investors, analysts and the press to its Capital Markets Day to inform them about the market and competition, SMA’s strategic direction, unique selling propositions and financial developments.

Transparency is particularly important whenever deliberations and company decisions might lead to conflicts of interest for members of the Supervisory Board or Managing Board. Any conflicts of interest that may have arisen are therefore disclosed by those members of the corporate bodies affected when discussion of the subject commences. The member concerned does not participate in the adoption of any necessary resolutions by the Managing Board or the Supervisory Board.

According to a disclosure made by the members of the Managing Board and the Supervisory Board, they held, either directly or indirectly, 6.36% (2021: 6.36%) of all shares issued by SMA Solar Technology AG as of the end of the fiscal year. The Managing Board members held a total stake of 0.03% (2021: 0.03%) in the share capital and the Supervisory Board members held a stake of 6.33% (2021: 6.33%) in the share capital. In addition, Danfoss A/S, in which Supervisory Board member Kim Fausang acts as President & Chief Executive Officer and Supervisory Board member Ilonka Nußbaumer acts as Executive Vice President, Head of Group HR, holds 20.00% (2021: 20.00%) of the share capital.

Remuneration Report

The Remuneration Report is shown in the same-titled section of the Annual Report and on our [website](#).

The company's corporate bodies and their functions

SMA Solar Technology AG is a stock corporation governed by German law. Accordingly, it possesses a dualistic management structure in which one corporate body is devoted to managing the company (the Managing Board) and is supervised by another corporate body (the Supervisory Board). Both bodies are endowed with different powers and work closely with one another in an atmosphere of trust when managing and supervising the company. At the Annual General Meeting, electing the auditor and the shareholder representatives to the Supervisory Board takes place as does determining the appropriation of profits, along with making decisions that impact member rights of shareholders.

MANAGING BOARD

The Managing Board is responsible for independently and jointly managing the company. It is obliged to sustainably ensure and increase the company value and is responsible for managing the business. In agreement with the Supervisory Board, it decides on fundamental issues of business policy and corporate strategy as well as on short- and medium-term financial planning. The Managing Board is in charge of preparing the Quarterly Statements, Half-Yearly Financial Reports and Annual Financial Statements and Consolidated Financial Statements for SMA Solar Technology AG and the SMA group, as well as for adherence to all legal and official provisions and internal policies.

As a collective body, the Managing Board, in principle, strives to adopt resolutions jointly. However, the Rules of Procedure for the Managing Board adopted by the Supervisory Board stipulate that individual members of the Managing Board are in charge of specific areas of responsibility. The Managing Board, with the consent of the Supervisory Board, lays out how responsibilities are assigned. The members of the Managing Board notify each other on an ongoing basis about all material events in their area of responsibility and about any matters covering multiple areas of responsibility. Under legal provisions or the Rules of Procedure, in certain transactions, a unanimous resolution of the Managing Board is mandatory. For a predetermined number of transactions, the Supervisory Board has a reservation of consent. The Managing Board has not instituted any committees.

The company's diversity concept for the Managing Board to be described in accordance with Section 289f HGB comprises, in part, consideration of the various personal and professional competencies required to fulfill the respective tasks on the Managing Board. Other elements include decisions on the proportion of women on the Managing Board and the age limit for the Managing Board described in Section 1 (4c) of the Supervisory Board's Rules of Procedure. The aim of the concept is to best meet the requirements for the work carried out by a managing board through a broad and varied range of knowledge and experience. The current makeup of the Managing Board upholds the prescribed age limit of 65 years and reflects different professions and professional backgrounds as well as personal and professional competencies. The current gender parity in the composition of the Managing Board also means that it meets the representation requirement for the minority gender under Section 76 (3a) of the German Stock Corporation Act (AktG). Long-term succession planning for the Managing Board takes place partly through regular monitoring by the Supervisory Board to adjust the quantitative and qualitative makeup of the Managing Board as well as the prevailing conditions brought about by the members of the Managing Board, such as a member reaching the age limit. The Managing Board is working to identify potential candidates within the company who would be suitable for taking on a role on the Managing Board given various time frames and, if necessary, after developing appropriate management skills. More detailed information on the members of the Managing Board can be found under the same-titled section.

On the Managing Board, Dr.-Ing. Jürgen Reinert, as Chief Executive Officer of SMA Solar Technology AG, is responsible for Strategy and Technology, the SMA business units as well as Operations, Sales and Service and Human Resources. Barbara Gregor is in charge of Finance, Legal and Corporate Governance, including Compliance and Internal Auditing.

SUPERVISORY BOARD

The Supervisory Board advises the Managing Board in all matters and supervises its activity. The Managing Board involves and consults with the Supervisory Board on all matters of fundamental significance and whenever particularly important business decisions need to be made. Under the Rules of Procedure applicable to the Managing Board, which were adopted by the Supervisory Board, the Managing Board must obtain prior approval from the Supervisory Board for certain decisions. Such decisions include approval of the annual budget, comprising the investment plan, incorporation, acquisition or sale of companies and acquisition or sale of real estate, whenever stipulated threshold values are exceeded. The Supervisory Board must also consent to the allocations of responsibility on the Managing Board.

The Supervisory Board is made up of 12 members and its composition complies with the provisions of the German Stock Corporation Act and the Codetermination Act. Under these provisions, the employees of German group companies and their shareholders (Annual General Meeting) each elect six representatives to the Supervisory Board. The current members of the Supervisory Board are: Martin Breul, Oliver Dietzel, Johannes Häde, Yvonne Siebert, Romy Siegert and Dr. Matthias Victor as employee representatives, and Roland Bent, Kim Fausing (Deputy Chairman), Uwe Kleinkauf (Chairman), Alexa Hergenröther, Ilonka Nußbaumer and Jan-Henrik Supady as shareholder representatives.

The members of the Audit Committee Alexa Hergenröther (Chair) and Jan-Henrik Supady have the expertise in the fields of accounting or financial audits required by Section 100 (5) of the German Stock Corporation Act (AktG) and the German Corporate Governance Code thanks to their experience as tax consultants entrusted with providing financial support for companies for many years and as managing partners of a company active in the strategic investments segment. The length of time spent as a member of the Supervisory Board can be found in the members' résumés, accessible on the company's [website](#).

The Committees of the Supervisory Board are made up as follows:

Presidial Committee	Uwe Kleinkauf (Chairman), Yvonne Siebert (Deputy Chairwoman), Kim Fausing, Dr. Matthias Victor
Audit Committee	Alexa Hergenröther (Chairwoman), Jan-Henrik Supady (Deputy Chairman), Oliver Dietzel, Johannes Häde
Nomination Committee	Uwe Kleinkauf (Chairman), Ilonka Nußbaumer (Deputy Chairwoman), Kim Fausing, Jan-Henrik Supady
Mediation Committee	Romy Siegert (Chairwoman), Kim Fausing (Deputy Chairman), Uwe Kleinkauf, Martin Breul

The committees prepare topics and resolutions for review by the Supervisory Board at its plenary session. They regularly meet with stakeholders such as the Managing Board, the auditor or the heads of Internal Audit or Compliance for this purpose. The committee chairperson reports on the content of the committee meetings at the next plenary session of the Supervisory Board. Any member of the Supervisory Board may attend committee meetings, provided the relevant committee chairperson does not decide otherwise. The meeting minutes and resolutions adopted by committees are made available to all the members of the Supervisory Board.

The Supervisory Board and the committees regularly conduct self-assessments to review the extent to which the committees are effectively handling the tasks allocated to them. The Supervisory Board and the committees assign themselves this efficiency check regularly as separate agenda items, according to which the members examine how tasks have been completed in the past and whether they can identify any improvements for future processes. The analysis focuses partly on the effectiveness of work carried out in the various committees in terms of how preparations are made for decision-making and how information is conveyed within each committee. The Supervisory Board also communicates with the Managing Board for the purpose of improving the efficiency of collaboration between the two bodies. In the reporting year, the Supervisory Board and active committees conducted one of these self-assessments for their work.

The Supervisory Board reports annually on the focus of its activities and deliberations in the Supervisory Board Report. You may refer to the Supervisory Board Rules of Procedure on our [website](#). The Supervisory Board members take general and specialized training necessary for their tasks of their own accord, and in doing so, they receive appropriate support from the company.

In the past, the Supervisory Board already has regularly considered the personal and professional requirements of its members and, with regard to the provisions of recommendation C.1 of the German Corporate Governance Code, decided on appropriate objectives for its composition and established a competence profile. The competence profile addresses the requirements for

members of the Supervisory Board, which are provided in particular by law, the German Corporate Governance Code and the objectives of the Supervisory Board for its composition. The implementation status of the skills profile from the perspective of the Supervisory Board is shown in the following skills matrix:

Skills matrix of the Supervisory Board

	Roland Bent ¹	Martin Breul	Oliver Dietzel	Kim Fausing ¹	Johannes Häde	Alexa Hergenröther ¹	Uwe Kleinkauf ¹	Ilonka Nußbaumer ¹	Yvonne Siebert	Romy Siebert	Jan-Henrik Supady ¹	Dr. Matthias Victor
Independence of the shareholder representatives	●					●		●			●	
Professional expertise²												
International corporate experience	●			●		●	●	●		●	●	
Technical expertise, particularly in the field of renewable energies, preferably in the field of photovoltaics	●	●	●	●	●		●		●			●
Knowledge of the internal structures and functions of the company		●	●		●	●	●	●	●			●
Knowledge in the field of digitalization	●		●	●		●		●	●		●	
Expertise in the field of accounting			●			●	●				●	
Expertise in the field of financial audits						●					●	
Expertise in the sustainability issues that are significant for the company	●			●		●	●	●		●	●	
Management experience in internationally active companies	●			●		●	●	●			●	●
Experience on the supervisory boards of listed companies			●	●		●						
Knowledge of the topics of corporate governance and compliance and corporate law				●		●	●	●			●	
Knowledge of the topics of the internal control and risk management system				●		●	●				●	

¹ Shareholder representatives

² ● = applicable

These requirements and the competence profile continue to form the diversity concept of the Supervisory Board within the meaning of Section 289f (2, Nr. 6) of the HGB, the objective of which is to ensure that the Supervisory Board has the broadest possible range and variation of knowledge and experience. The Supervisory Board considers that increasing the diversity of the Supervisory Board is already an objective of various provisions of the law and of the German Corporate Governance Code. It incorporated this objective when selecting new members and took it into consideration when creating its competence profile and the objectives for its composition, and will continue to do so in the future while implementing the diversity concept.

The objectives of the Supervisory Board for its composition are as follows:

1. The minimum proportion of women on the Supervisory Board is determined by legal provisions (Section 96 (2) AktG).
2. Maintain the composition of the Supervisory Board members with a background of international experience at least in the previous scope.
3. Special consideration given to candidates with knowledge and experience in the application of financial reporting standards and internal control processes as well as in the field of auditing.

4. Special consideration given to candidates with technical expertise, particularly in the field of renewable energies, preferably in the field of photovoltaics.
5. Special consideration given to candidates with knowledge in the field of digitalization and about the internal structures and functions of the company.
6. At least half of the shareholder representatives are to be independent. At the same time, at least one member is to possess expertise in the field of accounting or auditing.
7. Consideration of the age limit of 75 years at the end of the term of office when selecting new members.

These objectives have been implemented as follows:

On 1: The Supervisory Board now has four female members, Alexa Hergenröther, Ilonka Nußbaumer, Romy Siegert and Yvonne Siebert. Thus the requirements of Section 96 (2) AktG are met.

On 2 to 5 and 7: In the opinion of the Supervisory Board, these objectives have also been achieved.

On 6: The company currently considers six shareholder representatives – Roland Bent, Kim Fausing, Alexa Hergenröther, Uwe Kleinkauf, Ilonka Nußbaumer and Jan-Henrik Supady – independent in accordance with the rules of the current German Corporate Governance Code. Of these, Alexa Hergenröther and Jan-Henrik Supady, as two independent members, possess expertise in accounting and financial auditing. In addition, Alexa Hergenröther has particular experience in financial reporting standards and internal control processes and is also conversant with matters relating to financial auditing.

From the perspective of the Supervisory Board, the requirements arising from the competence profile and the diversity concept have been fulfilled, also with regard to the minimum proportion of women on the Supervisory Board.

COOPERATION BETWEEN THE MANAGING BOARD AND THE SUPERVISORY BOARD

The Managing Board and the Supervisory Board work closely with one another in an atmosphere of trust for the good of the company, thus meeting both the requirements of effective enterprise control and the need to be able to make decisions quickly. Their common goal is to secure the continued existence of the company and steadily increase its value. The Managing Board keeps the Supervisory Board promptly and comprehensively informed, both in writing and speech, and during regular meetings about the company's position, current business developments and all relevant questions pertaining to strategic planning, risk management, risk status and important compliance matters. The Quarterly Financial Statements and the Half-Yearly Financial Report are discussed with the Managing Board on a regular basis during Audit Committee meetings prior to their publication.

Outside meetings, the Chairman of the Supervisory Board and his deputy are also in contact with the Managing Board to discuss significant business transactions and upcoming decisions and are immediately informed about key developments.

SHAREHOLDERS AND ANNUAL GENERAL MEETING

SMA Solar Technology AG shareholders discuss their codetermination and control rights at the Annual General Meeting, which takes place at least once a year. The Annual General Meeting adopts resolutions with binding effect, and each share grants one vote. Every shareholder who registers on time is entitled to participate in the Annual General Meeting. In addition, shareholders may have their voting rights exercised by a credit institution, a shareholder association, the proxies deployed by SMA Solar Technology AG and bound by the shareholder's instructions or by another authorized representative. The invitation to the Annual General Meeting and all reports and information necessary for adopting resolutions, including the Annual Report, are published in accordance with the provisions of the Stock Corporation Act and are available in the run-up to the Annual General Meeting on our [website](#).

Information concerning takeovers required by HGB sections 289a and 315a

Number 1: The share capital of SMA Solar Technology AG amounts to €34.7 million. The share capital is divided up into 34,700,000 no-par value bearer shares. The rights and obligations associated with the shareholdings fall under the regulations in the German Stock Corporation Act.

Number 2: Each share grants one vote at the company's Annual General Meeting. The Managing Board is not aware of any restrictions affecting voting rights or the transferability of shares.

Number 3: Danfoss A/S, Denmark, holds 20.00% of the company's share capital.

Numbers 4 and 5: The shareholders and employees participating in the capital do not have any special rights granting them any particular powers of control.

Number 6: Appointment and dismissal of the Managing Board takes place pursuant to Sections 84 and 85 of the German Stock Corporation Act (AktG) together with Section 31 of the Codetermination Act (MitBestG). Under Article 5 of the Articles of Incorporation of SMA Solar Technology AG, the Managing Board consists of at least two members and the exact number is laid down by the Supervisory Board. Under Section 179 of the AktG, the Articles of Incorporation may be amended by a resolution adopted by the Annual General Meeting with a majority of three-quarters of the share capital represented at the vote.

Number 7: The Articles of Incorporation include the provisions on the powers of the Managing Board regarding Authorized Capital II. After obtaining the consent of the Supervisory Board, the Managing Board is entitled to increase the share capital on one or several occasions by up to a total of €3.4 million by issuing new bearer shares in return for cash contributions and/or contributions in kind in the period ending May 23, 2023. The Managing Board, with the consent of the Supervisory Board, is entitled to cancel the statutory subscription rights of shareholders in the following cases: (a) in the case of capital increases in return for contributions in kind for the acquisition of or investment in companies, parts of companies or investments in companies, (b) for the purpose of issuing shares to employees of the company and companies affiliated with the company, (c) to exclude fractions, and (d) in the case of capital increases in return for cash contributions if the issue amount of the new shares does not fall significantly below the stock exchange price of shares of the same class and terms that are already listed at the time the Managing Board sets the final issue amount, and the total pro rata amount of the issued capital attributable to the new shares in respect of which the subscription right is excluded does not exceed 10% of the issued capital available at the time the new shares are issued.

Furthermore, following a resolution adopted by the Annual General Meeting on June 1, 2021, the Managing Board, in the period up to May 30, 2026, is entitled on behalf of the company to acquire its own shares up to a value of 10% of the existing capital stock at the time the resolution was adopted by the Annual General Meeting and to dispose of shares acquired in this way with the consent of the Supervisory Board by means other than through the stock exchange or an offer made to all the shareholders, provided the shares are sold in return for cash at a price that does not fall significantly below the stock exchange price of shares in the company issued under the same terms or the shares are sold in return for in-kind contributions, or they are offered in return for shares held by persons that either had or have an employment relationship with the company, or with one of its affiliated companies, or members of bodies in companies that depend on the company. Furthermore, if the Managing Board sells the company's own shares by offering them to all the shareholders with the consent of the Supervisory Board, the Managing Board is entitled to exclude the shareholders' right of subscription for fractions. In addition, the Managing Board is entitled to cancel any own shares acquired after obtaining the consent of the Supervisory Board.

Number 8: Credit lines agreed with banks with a volume of €100 million contain a change of control clause that includes the special termination right of the relevant bank.

Number 9: If the employment contract with Dr.-Ing. Jürgen Reinert ends after being terminated by him within a period of six months after a change of control, Dr.-Ing. Jürgen Reinert is entitled to severance pay amounting to his remuneration rights for the remaining term of the employment contract, however, no longer than a period of two years.

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Income statement SMA group

in €'000	Note	2022	2021*
Sales	3	1,065,946	983,422
Cost of sales		841,677	808,217
Gross profit		224,269	175,205
Selling expenses		102,155	85,420
Research and development expenses		51,598	50,235
General administrative expenses		64,016	50,368
Other operating income	4	81,266	44,462
Other operating expenses	4	55,879	66,863
<i>thereof impairments according to IFRS 9</i>		1,833	334
Operating profit (EBIT)		31,887	-33,219
Income from at-equity-accounted investments	11	1,286	-304
Financial income		7,854	2,112
Financial expenses		6,169	2,464
Financial result	6	2,971	-656
Profit before income taxes		34,858	-33,875
Income taxes/expense (+)/income (-)	7	-20,959	-10,708
Net income		55,817	-23,167
of which attributable to shareholders of SMA AG		55,817	-23,167
Earnings per share, basic (in €)	8	1.61	-0.67
Earnings per share, diluted (in €)		1.61	-0.67
Number of ordinary shares (in thousands)		34,700	34,700

Statement of comprehensive income SMA group

in €'000	Note	2022	2021*
Net income		55,817	-23,167
Unrealized gains (+)/losses (-) from currency translation of foreign subsidiaries		-314	4,673
Changes recognized outside profit or loss (currency translation difference)		-314	4,673
Overall result		55,503	-18,494
of which attributable to shareholders of SMA AG		55,503	-18,494

* The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2).

Balance sheet SMA group

in €'000	Note	2022/12/31	2021/12/31*	2021/01/01*
ASSETS				
Intangible assets	9	88,932	62,700	44,263
Property, plant and equipment	10	191,845	194,173	207,180
Investment property	12	14,274	14,521	17,988
Other financial assets, non-current	11, 15, 24	6,170	2,662	19,428
Deferred tax assets	7	85,427	60,277	40,756
Non-current assets		386,648	334,333	329,615
Inventories	13	308,668	273,024	255,469
Trade receivables	14, 24	153,528	142,674	121,872
Other financial assets, current (total)	15, 24	57,688	133,689	156,145
Cash equivalents with a duration of more than 3 months and asset management		38,290	105,857	72,113
Rent deposits and cash on hand pledged as collaterals		16,436	10,188	41,556
Remaining other financial assets, current		2,962	17,644	42,476
Income tax assets	7	11,096	9,897	28,032
Value added tax receivables	15	18,548	27,401	28,808
Other non-financial assets, current	14	8,493	5,966	8,629
Cash and cash equivalents	16, 24	165,355	113,978	123,707
		723,376	706,629	722,662
Assets held for sale	17	0	12,698	0
Current assets		723,376	719,327	722,662
Total assets		1,110,024	1,053,660	1,052,277
LIABILITIES				
Share capital		34,700	34,700	34,700
Capital reserves		119,200	119,200	119,200
Retained earnings		309,623	254,120	283,024
SMA Solar Technology AG shareholders' equity	18	463,523	408,020	436,924
Provisions, non-current	19	92,692	104,431	84,524
Financial liabilities, non-current	20, 24	16,356	28,485	29,658
Contract liabilities, non-current	23	152,926	158,647	155,553
Other non-financial liabilities, non-current	23	1,845	1,550	3,769
Deferred tax liabilities	7	442	364	278
Non-current liabilities		264,261	293,477	273,782
Provisions, current	19	66,454	104,467	83,053
Financial liabilities, current	20, 24	7,307	18,170	11,475
Trade payables	21, 24	133,449	134,026	144,210
Income tax liabilities	7	4,162	6,629	6,648
Contract liabilities (advances)	23	90,219	24,206	22,560
Other contract liabilities, current	23	42,160	43,330	44,617
Other financial liabilities, current	22, 24	568	538	538
Other non-financial liabilities, current	23	37,921	20,797	28,470
Current liabilities		382,240	352,163	341,571
Total equity and liabilities		1,110,024	1,053,660	1,052,277

* The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2).

Statement of cash flows

SMA group

in €'000	Note	2022	2021*
Net income		55,817	-23,167
Income taxes		-20,959	-10,708
Financial result		-2,971	656
Depreciation and amortization of property, plant and equipment and intangible assets		38,126	41,674
Change in provisions		-49,752	41,321
Result from the disposal of intangible and fixed assets and non-current assets		-20,639	410
Change in non-cash expenses/revenue		39,060	21,204
Interest received		293	1,956
Interest paid		-796	-910
Income tax paid		-5,547	11,990
Gross cash flow		32,632	84,426
Change in inventories		-45,439	-23,420
Change in trade receivables		-12,933	-21,267
Change in trade payables		-577	-10,184
Change in other net assets/other non-cash transaction		54,981	64,702
Cash flow from operating activities		28,664	94,257
Payments for investments in property, plant and equipment		-25,895	-17,572
Proceeds from the disposal of property, plant and equipment		119	231
Payments for investments in intangible assets		-35,926	-29,940
Proceeds from the sale of shares in associates and available-for-sale assets less cash given up		37,610	0
Payments for the acquisition of shares in associated companies		0	-750
Proceeds from the disposal of securities and other financial assets		66,613	40,900
Payments for the acquisition of securities and other financial assets		0	-74,488
Cash flow from investing activities		42,521	-81,619
Payments for lease liabilities		-10,990	-7,292
Redemption of financial liabilities		-8,346	-3,060
Dividends paid by SMA Solar Technology AG		0	-10,410
Cash flow from financing activities		-19,336	-20,762
Net increase/decrease in cash and cash equivalents		51,849	-8,124
Changes due to exchange rate effects		-472	-1,605
Cash and cash equivalents as of January 1		113,978	123,707
Cash and cash equivalents as of December 31	27	165,355	113,978

* The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2).

Statement of changes in equity SMA group

in €'000	Note	Share capital	Capital reserves	Difference from currency translation	Other retained earnings	Consolidated shareholders' equity
Shareholders' equity as of January 1, 2021		34,700	119,200	-523	285,769	439,146
Adjustment IAS 8	2.2				2,222	2,222
Shareholders' equity as of January 1, 2021 (adjusted)		34,700	119,200	-523	283,547	436,924
Net income					-23,167	-23,167
Other comprehensive income after tax				4,673		4,673
Overall result						-18,494
Dividend payments of SMA Solar Technology AG					-10,410	-10,410
Shareholders' equity as of December 31, 2021		34,700	119,200	4,150	249,970	408,020

in €'000	Note	Share capital	Capital reserves	Difference from currency translation	Other retained earnings	Consolidated shareholders' equity
Shareholders' equity as of January 1, 2022		34,700	119,200	4,150	249,970	408,020
Net income					55,817	55,817
Other comprehensive income after tax				-314		-314
Overall result						55,503
Dividend payments of SMA Solar Technology AG						
Shareholders' equity as of December 31, 2022		34,700	119,200	3,836	305,787	463,523

NOTES SMA GROUP

General information

1. Basics

The Consolidated Financial Statements of SMA Solar Technology AG as of December 31, 2022, were prepared in compliance with the International Financial Reporting Standards (IFRS) as adopted by the EU, as well as in compliance with the regulations of Section 315e of the German Commercial Code (HGB). The requirements of the standards applied were met completely and provide a fair view of the net assets, financial position and results of operations of SMA Solar Technology AG and its subsidiary companies included in the scope of consolidation (hereinafter: SMA group).

The registered office of the company is Sonnenallee 1, 34266 Niestetal, Germany. The company is registered at the commercial court of Kassel under the trade register number HRB 3972. Shares of SMA Solar Technology AG have been traded publicly since June 27, 2008. They are listed in the Prime Standard of the Frankfurt Stock Exchange. The company has been listed in the TecDAX since June 20, 2022.

The Consolidated Financial Statements are prepared using the amortized acquisition cost principle and under the going concern assumption. Exceptions to this are provisions, deferred taxes, derivative financial instruments and securities as well as institutional mutual funds.

The income statement is classified according to the cost of sales method. The Consolidated Financial Statements were prepared in euro. Unless indicated otherwise, all amounts stated are in euro rounded to whole thousands (,000) or millions (€ million), rounding differences may arise as a result.

The Managing Board of SMA Solar Technology AG authorized the Consolidated Financial Statements on March 9, 2023, for submission to the Supervisory Board. The Supervisory Board has the duty of reviewing the Consolidated Financial Statements and declaring whether it approves the Consolidated Financial Statements.

SMA Solar Technology AG (SMA AG) and its subsidiaries (SMA group) develop, produce and sell solar inverters, transformers, chokes and monitoring systems for solar power systems. In addition, the company offers intelligent energy management solutions and services, including operation and maintenance services for

photovoltaic power plants (O&M business – Operations and Maintenance). Another business segment is digital services for the future energy supply.

More detailed information on the segments is provided in section 3.

1.1 CONSOLIDATION PRINCIPLES

All domestic and foreign subsidiaries in which SMA Solar Technology AG, directly or indirectly, has the option of controlling as defined in the regulations of IFRS 10 are included in the Consolidated Financial Statements of the SMA group. The included statements are prepared based on uniform principles.

An associate is a company over which the group exercises significant influence. Significant influence means the option to participate in the financial and operating policy decisions of the company, in which the investment is held, but not to exercise control or joint control over the decision-making processes.

A joint venture is a company in which an SMA group company exercises joint control together with one or more external parties. Joint control exists if decisions on significant activities of the joint venture require the unanimous approval of the jointly controlling parties.

1.2 SCOPE OF CONSOLIDATION

With the exception of elaxon GmbH, all companies within the scope of consolidation are fully consolidated. elaxon GmbH is recognized as a joint venture in the consolidated financial statements according to the equity method. UNIKIMS GmbH, which is reported in the list of shareholdings under investments, is accounted for as a financial investment. There was a change in the scope of consolidation as of December 31, 2022, compared to December 31, 2021, in that SMA Sunbelt Energy GmbH was merged with emerce GmbH. The company is now operating under the name SMA Altenso GmbH. Australia Zeversolar New Energy Pty. Ltd. was in liquidation on the reporting date. It was officially deregistered on January 13, 2023. The change to the scope of consolidation does not impact comparability with the previous year.

The scope of consolidation of the SMA group is presented in the complete list of shareholdings shown below pursuant to Section 313 of the German Commercial Code:

Name of parent company	Registered office	Share in capital	Consolidation
SMA Solar Technology AG	Niestetal, Germany		F
Shares in affiliated companies			
Australia Zeversolar New Energy Pty. Ltd.	Sydney, Australia	100%	F
coneve GmbH	Munich, Germany	100%	F
emerce Africa (Pty.) Ltd.	Cape Town, South Africa	100%	F
SMA Altenso GmbH	Fritzlar, Germany	100%	F
SMA America Holdings LLC	Denver, U.S.	100%	F
SMA Solar Technology America LLC	Rocklin, U.S.	100% ³	F
SMA Australia Pty. Ltd.	North Sydney, Australia	100%	F
SMA Benelux BV	Mechelen, Belgium	100% ¹	F
SMA France S.A.S.	Saint Priest, France	100%	F
SMA Ibérica Tecnología Solar, S.L.	Sant Cugat del Vallès (Barcelona), Spain	100%	F
SMA Immo Beteiligungs GmbH	Niestetal, Germany	100%	F
SMA Immo GmbH & Co. KG	Niestetal, Germany	100%	F
SMA Italia S.r.l.	Milan, Italy	100%	F
SMA Japan Kabushiki Kaisha	Tokyo, Japan	100%	F
SMA Magnetis Sp. z o.o.	Modlniczka, Poland	100%	F
SMA Middle East Limited	Abu Dhabi, United Arab Emirates	100%	F
SMA Solar Beteiligungs GmbH	Niestetal, Germany	100%	F
SMA Solar India Private Limited	Thane, India	100% ¹	F
SMA Solar Technology Beteiligungs GmbH	Niestetal, Germany	100%	F
SMA Solar Technology Canada Inc.	Vancouver, Canada	100%	F
SMA Solar Technology de México S. de R.L. de C.V.	Santiago de Querétaro, Mexico	100%	F
SMA Solar Technology (Shanghai) Co., Ltd.	Shanghai, China	100%	F
SMA Solar Technology South Africa (Pty.) Ltd.	Cape Town, South Africa	100%	F
SMA Solar Turkey Teknoloji Limited Şirketi	Istanbul, Turkey	100%	F
SMA Solar (Thailand) Co., Ltd.	Bangkok, Thailand	100% ²	F
SMA Solar UK Ltd.	Banbury, Great Britain	100%	F
SMA South America SpA	Santiago, Chile	100%	F
SMA Brasil Tecnologia Solar Ltda.	São Paulo, Brazil	100% ³	F
Investments			
elaxon GmbH	Aachen, Germany	42.0%	R
UNIKIMS GmbH	Kassel, Germany	9.6%	N

F = fully consolidated; N = not consolidated; R = recognized at equity

¹ 0.1% are held by SMA Solar Technology Beteiligungs GmbH.

² 0.001% are held by SMA Solar Technology Beteiligungs GmbH and 0.001% are held by SMA Solar UK Ltd.

³ indirect investment

SMA Solar Technology AG and SMA Magnetis Sp. z o.o. are manufacturing companies. The others are sales and service companies.

All SMA group companies prepare their Annual Financial Statements as of December 31, with the exception of our Indian subsidiary SMA Solar India Private Limited, which prepares its Financial Statements as of March 31 due to statutory regulations. For the

purpose of inclusion in the Consolidated Financial Statements, SMA Solar India Private Limited prepares IFRS interim financial statements.

The company SMA Immo GmbH & Co. KG (Section 264b German Commercial Code – HGB) exercised exemption clauses regarding the preparation and publication of Financial Statements.

1.3 TRANSLATION OF FINANCIAL STATEMENTS INTO FOREIGN CURRENCIES

The Consolidated Financial Statements are prepared in euro, which is the reporting currency of the group. Each company within the group defines its own functional currency, which is normally the local currency. The items contained in the Financial Statements of each company are translated using this functional currency.

Transactions denominated in foreign currencies are translated initially into the functional currency by applying the spot rate valid at the time of the transaction. On each subsequent due date, monetary assets and liabilities denominated in foreign currencies are translated into the functional currency by applying the spot rate valid on that day. All translation differences are recognized through profit or loss.

Assets and liabilities of subsidiaries preparing their balance sheets in a currency other than the euro are translated using the current exchange rate on the balance sheet date. Items on the income statement are translated periodically using the average rate of the relevant month. The equity components of subsidiaries are translated at the corresponding historical exchange rate applicable upon accrual. Any exchange differences are recognized at fair value in other comprehensive income and on a cumulative basis in equity as a separate item under retained earnings. The accumulated amount recorded in equity is recognized through profit or loss upon the disposal of the foreign subsidiary concerned.

2. Accounting principles and amendments to accounting standards

2.1. NEW IASB ACCOUNTING STANDARDS AND INTERPRETATIONS TO BE APPLIED FOR THE FIRST TIME IN THE FISCAL YEAR

New standards and interpretations that are not explained in detail here do not result in any significant changes in the group at present. Only if changes have a material effect on the group's accounting, this is explained separately. If no explanation of the effects is given, the changes have no material effect on the group's accounting.

Amendments to IFRS 16 Covid-19-Related Rent Concessions beyond June 30, 2021

The amendments mean that lessees are exempt from assessing whether rent concessions (e. g., rent-free periods, temporary rent reductions, etc.) granted due to the coronavirus pandemic constitute a rent modification. If advantage is taken of the exemption, the rent concessions shall be entered in the balance sheet as if they did not constitute a modification to the rental contract. The amendments apply to rent concessions that reduce rent payments due on or before June 30, 2022.

Annual Improvements to IFRS (2018 to 2020 cycle)

The improvements relate to minor amendments to IFRS 1 First-time Adoption of IFRSs, IFRS 9 Financial Instruments, IFRS 16 Leases, and IAS 41 Agriculture.

Amendments to IAS 16 Income before the operational status

Income from the sale of products produced during test runs of not yet completed plants and the costs for the production of these items shall be recorded in the operating result. It is not permissible to deduct the income from the cost of the assets.

Amendments to IAS 37 Scope of compliance costs for onerous contracts

The amendments specify the scope of the compliance costs, meaning that all directly attributable costs shall be taken into account. This encompasses all costs that would not be incurred without the contract as well as other costs that shall be directly attributable to fulfillment of the contract. In the case of onerous contracts, there is an impact on group accounting because only unavoidable incremental costs have been recognized to date. This standard has already been applied early in the SMA group as of December 31, 2021.

Amendments to IFRS 3 Reference to the Conceptual Framework

The amendments to IFRS 3 concern an adjustment of the reference to the 2018 conceptual framework. They relate to the recognition of assets and liabilities from acquisitions and the exception from the application of the general criteria for recognition for liabilities from acquisitions. In addition, they include a clarification that the recognition of contingent assets in the context of an acquisition is prohibited.

Agenda decisions of the IFRS Interpretations Committee

In addition, the following agenda decisions have been adopted by the IFRS Interpretations Committee since December 31, 2021, which are to be taken into account in the application of IFRS but have no impact on the Consolidated Financial Statements: Decisions on IFRS 9 and IAS 20 (TLTRO III), on IAS 7 (Demand Deposits), on IFRS 15 (Principal vs. Agent: Software Resellers), on IFRS 9 (Cash Received via Electronic Transfer as Settlement for a Financial Asset), on IAS 37 (Negative Low Emission Vehicle Credits), IAS 32 (Special Purpose Acquisition Companies (SPAC): Classification of Public Shares as Financial Liabilities or Equity), on IFRS 17 (Transfer of Insurance Coverage under a Group of Annuity Contracts), on IFRS 17/IAS 21 (Multi-currency groups of Insurance Contracts), on IFRS 9 (Special Purpose Acquisition Companies (SPAC): Accounting for Warrants at Acquisition), IFRS 16 and IFRS 9 (Lessor Forgiveness of Lease Payments).

STANDARDS AND INTERPRETATIONS PUBLISHED BUT NOT YET MANDATORY

In its 2022 Consolidated Financial Statements, the SMA group did not apply the following accounting standards, which had already been adopted by the IASB but were not yet mandatory for this fiscal year.

They will be implemented in the year of compulsory first-time application if they are implemented and applied in the EU. Earlier application is not permitted. If a significant impact on the group's accounting is expected, a separate description is provided for the relevant issue.

IFRS 17 Insurance Contracts

The new IFRS 17 standard was published in May 2017. This standard applies to reporting periods beginning on or after January 1, 2023.

Amendments to IFRS 17 Initial Application of IFRS 17 and to IFRS 9 Comparative Information

The amendments relate to the transitional provisions of IFRS 17, if IFRS 17 and IFRS 9 are applied for the first time simultaneously. Under the amendments, a company is permitted to present comparative information about a financial asset as if the classification and measurement requirements of IFRS 9 had been applied to that financial asset before. The amendments are applicable for the first time for financial years beginning on or after January 1, 2023.

Amendments to IAS 1 Classification of liabilities as current or non-current

The amendments to IAS 1 only affect the classification as current or non-current and have no impact on the amount or timing of the recognition of assets, liabilities, income or expenses, or the disclosure requirements. In the event that they are endorsed, the amendments shall apply from January 1, 2024.

Amendments to IAS 1 Presentation of Financial Statements including amendments to the practice statements

The amendments to IAS 1 will only require "material" rather than "significant" accounting policies to be explained in the notes in future. An accounting policy is material if, together with other information in the financial statements, it could influence the decisions taken by users of financial statements on this basis. This is specified further in the accordingly adjusted IFRS Practice Statement 2. The amendments shall apply from January 1, 2023.

Amendments to IAS 8 Changes in Accounting Estimates and Errors

The amendments to IAS 8 relate to how companies can better distinguish between changes in accounting policies and changes in estimates. To this end, it specifies that an accounting estimate always represents a monetary amount in the financial statements that is subject to measurement uncertainty. The difference from changes in accounting policies is thus clarified; it is important because changes in estimates have to be accounted for prospectively, whereas changes in accounting policies have to be accounted for retrospectively. The amendments shall apply from January 1, 2023. They will have effects on group accounting with regard to changes in estimates and changes in the accounting method.

Amendments to IAS 12 Income taxes

The amendments to IAS 12 clarify the application of the initial recognition exemption and limit its scope. If a transaction gives rise to both deductible and taxable temporary differences in the same amount, these no longer come under the initial recognition exemption and therefore deferred tax assets and liabilities must now be recognized. In the event that they are endorsed, the amendments shall apply from January 1, 2023.

Amendments to IFRS 16 Leasing

The amendments to IFRS 16 relate to the accounting for lease liabilities in the case of sale and leaseback transactions when the sale is accounted for in accordance with IFRS 15. It is clarified that the lessee/seller must take variable lease payments into account in its calculation when initially recognizing the lease liability. No profit or loss shall be recognized in the subsequent measurement of the lease liability to the extent that it relates to the right-of-use asset that has been recovered. The right-of-use asset recovered is calculated as the ratio of the present value of the lease payments to the fair value of the leased asset multiplied by the original book value of the leased asset. In the event that they are endorsed, the amendments shall apply from January 1, 2024.

2.2. CHANGES TO THE REPORTING (INCLUDING ERROR CORRECTIONS)

As a result of the significant change in interest rates in the fiscal year, discounting effects due to interest rate changes have been reported in the financial result since 2022 and are no longer reported under the cost of sales (and partially in other operating income and expenses). Due to only insignificant interest rate-related change effects in 2021, an adjustment of the prior-year figures was omitted.

In the 2022 fiscal year, the group discovered that prepaid fees for extended warranties for external customers at subsidiaries in fiscal years 2009 to 2021 were incorrectly recognized as deferred income in the amount of the intercompany transfer pricing rather than in the amount of the transaction price in accordance with IFRS 15.A. The error for 2009 to 2020 was corrected as of January 1, 2021, resulting in changes to the following items:

in €'000	As previously reported	Adjustment	Adjusted
Retained earnings	285,246	2,222	283,024
Contract liabilities, non-current	152,249	3,304	155,553
Deferred tax assets	39,674	1,082	40,756

The corrections to the balance sheet items and income statement for the 2021 fiscal year resulted in changes to the following items:

in €'000	As previously reported	Adjustment	Adjusted
Retained earnings	256,509	2,389	254,120
Contract liabilities, non-current	155,094	3,553	158,647
Deferred tax assets	59,113	1,164	60,277

in €'000	As previously reported	Adjustment	Adjusted
Sales	983,671	249	983,422
Net income	-23,000	167	-23,167
Income taxes	-10,626	82	-10,708
Earnings per share (in €)	-0.66	0.01	-0.67

2.3. DISCLOSURES TO THE ACCOUNTING AND VALUATION POLICIES

Intangible assets acquired with a finite useful life are valued at acquisition costs. They decline via straight-line amortization over their useful lives and accumulated impairments.

The costs for internally generated intangible assets are recognized in the period in which they accrue, with the exception of development expenses that can be capitalized.

Research and development expenses include all expenses that can be attributed directly to research or development activities. Research expenses are recognized as expenditure in the period in which it is incurred. Development expenses of a project are capitalized as an intangible asset, only after the SMA group can demonstrate both the technical and economic feasibility of the intangible asset so that it will be available for internal use or sale and has the intention to complete the intangible asset and either use or sell it. Development expenses are recognized at cost pursuant to IAS 36.66, less accumulated amortization and impairment. Amortization commences at the end of the development phase and from the moment the asset can be used. Amortization is effected over the period during which future benefit will be expected. No borrowing costs are capitalized in connection with the activation of development expenses. In addition, there are currently no qualifying assets for which borrowing costs are capitalized.

Company acquisitions in previous years resulted in low **goodwill**, see also Section 9. Intangible assets. There were no other intangible assets with an indefinite useful life in the periods under review.

Intangible assets with finite useful lives are amortized on a straight-line basis over a period of three to five years, including development projects, software and licenses. Patents are written off over ten years. In the case of intangible assets with a finite useful life, the period of amortization and the amortization method are reviewed at least at the end of each fiscal year. Any adjustments to the amortization period that become necessary because of changes in the expected useful life are accounted for as changes to estimates. Amortization is recorded under the expense category that corresponds to the function of the intangible asset in the enterprise.

Any gains or losses from derecognition of intangible assets are determined as the difference between the net disposal proceeds and the book value of the asset. They are recognized in profit or loss in the period in which the asset is derecognized.

Property, plant and equipment is valued at cost of acquisition or sales less straight-line depreciation and accumulated impairment losses. Borrowing costs are added to cost of acquisition and sales in the event of qualifying assets. The cost of replacement of a part of a fixed asset is included in the book value of this asset when incurred if the criteria for recognition are fulfilled. When major inspections are carried out, the costs are capitalized according to the book value of the relevant assets if the criteria for recognition are met. All other maintenance and repair costs are expensed immediately.

The depreciation period is based on the expected useful life. Depreciation is recognized under the expense category that corresponds to the function of assets in the enterprise. Scheduled straight-line depreciation is based on the following useful life of assets:

	Useful life
Leasehold improvements	10 years
Buildings	25 to 35 years
Technical equipment and machinery	6 to 8 years
Business and office equipment	5 to 10 years

A fixed asset is derecognized either upon its disposal or when no further economic benefit is expected from the further use or sale of the asset. Gains or losses from derecognition of the asset are determined as the difference between the net disposal proceeds and the book value of the asset. This difference is recognized through profit or loss in the income statement as other operating income or other operating expenses when the asset is sold.

The residual values, useful lives and depreciation methods are reviewed at the end of each fiscal year and adjusted if necessary.

Property, plant and equipment that is held to generate rental income are recognized as **“Investment Property”** in accordance with IAS 40. Investment properties must be capitalized at cost on acquisition. The SMA group recognizes investment property at amortized cost using the original costs model. The buildings are depreciated on a straight-line basis over their economic useful life. Attributable expenses must be assigned in full to the investment properties responsible for generating the rental income. An external opinion on the determination of the market value is regularly prepared for disclosures in the notes as well as for the impairment test. The market value of the property was determined on the basis of a tax valuation method. The main input parameters are the discount rate, estimated vacancy and the development of market rents, and the method reflects a level 3 rating in the sense of IFRS 13. The market value corresponds to the highest and best benefit of the property. In addition, SMA AG rents a partial plot of land that is recognized at original cost. An internal appraisal was prepared for this. This was based on a price that could be achieved between two independent market participants on an active market for such a plot of land. This reflects a level 2 rating as defined in IFRS 13. The market value corresponds to the highest and best benefit of the real estate property. The market value thus measured for the level 3 rating is €8.4 million (2021: €8.6 million) and €18.6 million (2021: €18.6 million) for the level 2 rating. These are cumulative figures. Please refer to the explanations in Section 12. Investment property.

Property, plant and equipment that constitute non-current assets held for sale and discontinued operations are classified as held for sale according to IFRS 5. The condition is that the associated book value is realized largely through disposal and not through continued use. On the date of classification, these assets are measured at the lower value of book value and fair value less costs to sell, and no longer depreciated or amortized.

Impairment of intangible assets and property, plant and equipment:

On each balance sheet date, the group reviews whether there are any indicators that the value of an asset might be impaired. In the current fiscal year, the forecast corrections for the current fiscal year that were published by ad hoc reports led to such indications. If such indicators exist or if an annual impairment test of an asset is required, the group determines the recoverable amount of the relevant asset. The recoverable amount of an asset is its fair value less costs to sell or its value in use, whichever is higher. As a rule, the recoverable amount will be determined for each individual asset. If it proves impossible to determine the recoverable amount for individual assets because the cash flows depend on those of other assets, the cash flows are determined for the next higher group of assets (cash-generating unit). In assessing the value in use, the estimated future cash flows are discounted to their present value using a pretax discount rate that reflects current market assessments regarding the interest effect and the risks specific to the asset. These estimated future cash flows are subject to considerable uncertainty in connection with the global coronavirus pandemic and the continued tight supply situation for electronic components due to significantly increased global demand in the context of the economic recovery and progressive digitalization. To determine the fair value less costs to sell, an adequate valuation model is used.

If the book value of an asset or a cash-generating unit exceeds the recoverable amount, impairment is recognized for the asset or the cash-generating unit in question. An impairment is recognized to the recoverable amount. Impairment costs are recognized under the expense category that corresponds to the function of the impaired asset in the enterprise. As in the previous year, the impairment tests performed in the fiscal year did not reveal any indications of impairment.

For assets, a test is carried out on each balance sheet date to determine whether a previously recognized impairment loss has ceased to exist or has diminished. Additions are made if the recoverable amount has increased in subsequent periods. An impairment loss recognized in prior periods is reversed only if there have been significant changes to the measurement parameters used to originally determine the asset's recoverable amount since the last impairment loss was recognized. If this is the case, the book value of the asset is increased to as much as its recoverable amount. However, an addition is limited to the amount that would have resulted based on scheduled depreciation without recognizing an impairment. The addition is recognized in the income statement. Impairment on goodwill is not reversed. This was not the case in the reporting year or in the previous year.

Inventories are measured at the lower value of the cost of acquisition or sales and net realizable value. The costs of acquisition or production include all costs incurred during acquisition and production as well as other costs incurred in bringing the inventories to their present location and condition. Borrowing costs are not taken into account here. In general, when determining the acquisition costs of raw materials, consumables and supplies, moving average prices are used. The cost of sales of work in progress and finished goods is determined in the amount of direct material and labor costs as well as production-related indirect costs on the basis of detailed cost accounting. The net realizable value consists of the estimated sales proceeds that can be achieved through the ordinary course of business, less the estimated costs incurred up to completion and the estimated necessary selling expenses. Impairments are particularly made in the case of a lack of standardization, discontinued products and surplus stocks of non-product-specific materials. A time horizon of 36 months is used for the estimation of mobility. In the case of stock items that are used exclusively in a discontinued product and are also not required by Service, an impairment is carried out for their full value. If the reasons that have resulted in an impairment of inventories no longer exist, a corresponding addition is made.

As a rule, **financial instruments** are reported as soon as an entity of the SMA group becomes a contracting party to a financial instrument. A financial instrument is a contract that gives rise to both a financial asset held by one entity and a financial liability or an equity instrument held by another entity. If the trading date and the settlement date of financial assets are different, then the settlement date is decisive for initial recognition. The date of contract conclusion is only decisive in the case of financial derivatives.

Financial assets and financial liabilities are measured at fair value upon their initial recognition. Financial instruments are also designated to measurement categories in accordance with IFRS 9. Further explanations are provided in Section 24. Additional disclosures relating to financial instruments. If permitted and necessary, redesignations are made at the end of the fiscal year. In the case of financial instruments for which there is no measurement at fair value through profit or loss, the transaction costs that are directly attributable to the purchase of the financial asset or to the issue or assumption of the financial liability are also included. These are those directly attributable to the acquisition of the financial asset or directly attributable to the issue of financial liabilities.

Financial instruments are generally stated separately. They are netted only if there is a right of offsetting them on the relevant date and also if the intention is to perform the settlement on a net basis.

Their subsequent measurement is based on the previous categories pursuant to IFRS 9. For the SMA group, the measurement categories “Amortized Cost” and “Fair Value Through Profit or Loss” are particularly relevant. Any loans and receivables granted and other financial liabilities are measured at amortized cost of acquisition using the effective interest method.

Assets measured “At Fair Value Through Profit or Loss” are measured at fair value. These primarily include derivative financial instruments that are not part of an effective hedging relationship. Derivative financial instruments are reported as assets or liabilities if their fair values are positive or negative. Gains and losses resulting from changes in the fair value of derivative financial instruments are recognized directly through profit or loss, as long as no hedging relationship was created for them. Gains or losses resulting from subsequent measurement are recognized through profit or loss in the income statement.

At each reporting date, the accounting values of the financial assets, which are not measured at fair value through profit or loss, are then examined to see whether objective evidence indicates an impairment. Any impairment loss, which is based on a lower value than the carrying amount, is recognized in the income statement.

A financial asset is removed from the books if the enterprise has relinquished control of the contractual rights related to the financial asset. A financial liability is removed from the books if the obligation underlying the liability is discharged, cancelled or has expired.

For the majority of the financial instruments that come under the impairment regulations at the SMA group, trade receivables without a significant financing component, the IFRS 9 mandatorily stipulates a simplified two-level model. Under this model, a risk provision in the amount of the expected losses over the remaining term (“Level 2”) is recognized for all instruments, irrespective of their credit quality. The amount of the risk provision at level 2 is calculated based on a flat rate. This rate is applied to the entire SMA group, as there are no different default rates for different regions or business units. The application of IFRS 9 resulted in a rate of 0.31% (2021: 0.35%). When determining the default rate, a looking-forward component is taken into account, in the sense that the SMA group is in a very volatile environment and, despite all market fluctuations and changes, there were no significant influences on the default rates of the receivables. Due to the management assessment, no change is expected in the future.

As described, trade receivables are all allocated to level 2 on acquisition and are transferred to level 3 if there are objective indications of impairment. Despite the general focus on internal risk management, it is assumed that a default event occurs at the latest when a receivable is 90 days past due. However, this assumption can be disproved based on suitable information. Because high-risk receivables are collateralized and high-risk customers are supplied or receive services only if they pay in advance, the level of bad debt losses in the group is not significant (less than 1% of receivables). For this reason, a default event is not assumed until the receivable is 180 days past due. Receivables are impaired after being overdue.

For all other financial instruments (cash and cash equivalents, debt securities [non-market-traded], rent collateral and pledges, time deposits and other short-term deposits [> 3 months], contractual assets, receivables from joint ventures) that fall under the impairment requirements of IFRS 9, the general model is applied. Additional information on default risk and expected credit losses of the relevant balance sheet items is waived for materiality reasons.

Government grants are not recognized until there is reasonable assurance that the SMA group will meet all the conditions for receiving the grants. Government grants that are paid to compensate for expenses or losses already incurred or to provide immediate financial support without directly associated expense are recognized in the income statement in the period in which the corresponding claim arises.

Provisions account for all recognizable present (legal and constructive) obligations of the group to third parties as a result of past events that are expected to lead to an outflow of resources with an economic benefit to settle the obligation and the amount of which can be estimated reliably. Provisions are recognized in line with IAS 37 at the estimated amount required to settle them. Insofar as the group expects to receive a repayment, at least in part, for a reported provision (e. g., for an insurance contract), the repayment is recorded as a separate asset if the inflow of the payment is highly probable. The expense arising from the formation of the provision is recognized in the income statement. Non-current provisions are carried in the balance sheet at their settlement amount discounted to the balance sheet date using corresponding term-dependent market interest rates. If the amount is discounted, the increase of provisions caused by expiration is recorded under finance costs. Additions to the provisions for guarantees outlined under Section 19. Provisions are recognized in cost of sales. It is not carried out by a delimitation of revenue. In addition to specific individual items, provisions for warranty obligations also take into account provisions for expected equipment failures during the warranty period. In the case of warranty risks, an obligation of five to ten years is generally adopted as a base.

At the beginning of the contract, the group as a lessee assesses whether the contract contains a **lease**. For all leases where the group is the lessee, the group recognizes a right-of-use asset and a corresponding lease liability. Exceptions to this include short-term leases (term up to 12 months) and leases for low-value assets (printers et al.). For these leases, the group recognizes lease payments on a straight-line basis over the lease term under "Other operating expenses," unless another systematic basis is more representative.

Upon initial recognition, the lease liability is measured at the present value of the lease payments not yet paid at the beginning of the lease, discounted at the interest rate underlying the lease. If this interest rate cannot be determined easily, the group uses the incremental borrowing rate. Upon initial recognition, it is also taken into account whether the contracts have an extension option. If such options exist, an assessment must be made at the outset, or when new evidence becomes available, as to whether the extension options will be exercised. The group has building contracts with extension options. In general, contracts have an annual option to extend by one year or an option to extend for another five years.

The discount rate is calculated using the following method in each case: First, the risk-free interest rate with matching maturities is calculated within a region. A rating result for SMA AG has to be calculated based on credit quality.

The following lease payments are included in the assessment of the lease liability:

- Fixed lease payments
- Variable lease payments
- Expected lease payments due to residual value guarantees
- Exercise prices of call options
- Penalties for the early termination of leases

Variable lease payments that do not depend on an index or exchange rate are not included in the assessment of the lease liability and the right-of-use asset.

The lease liability is subsequently measured by increasing the carrying amount by the interest on the lease liability and reducing the carrying amount by the lease payments made.

In the following cases, the group modifies the lease liability and adjusts the right-of-use asset accordingly if this involves a change that was not provided for in the original contractual arrangement:

- The term of the lease has been amended
- Amendments to lease payments

If one of these cases occurs, the existing lease is modified in accordance with these changes. A separate lease is not recognized.

The rights of use are initially measured at the amount of the corresponding lease liability less lease payments made at or before the beginning of the lease, lease incentives received and initial direct costs. Subsequent measurement is at original cost less accumulated amortization and impairment.

If the group is obliged to dismantle or reduce a leased asset, to restore the site on which the asset is located or to restore the asset underlying the lease to the condition required by the terms of the lease, a provision is recognized and measured in accordance with IAS 37. If the costs relate to a right-of-use asset, the costs are recognized in the corresponding right-of-use asset, unless these costs are incurred for the production of inventories.

The examination as to whether an impairment of a right-of-use asset is necessary is carried out in accordance with IAS 36.

Due to the relief provisions, a separation between non-leasing components and leasing components was waived and leasing agreements with associated non-leasing components were accounted for accordingly as a single agreement in accordance with IFRS 16.

The group makes use of the relief provision to not report separately the leasing component and the non-leasing components.

If the group – in its capacity as lessor – has concluded a sublease, the main lease and sublease are accounted for as two separate contracts. Classification as a finance or operating lease of the sublease is based on the right-of-use asset and not the asset underlying the lease from the main lease.

Rental income from operating leases is recognized on a straight-line basis over the term of the respective lease. Initial direct costs incurred in negotiating and agreeing a lease are added to the carrying amount of the leased asset and allocated on a straight-line basis over the lease term.

Amounts payable from lessees under finance leases are reported as receivables in the amount of the group's net investment in the leases. Income from finance leases is distributed over the respective reporting periods to ensure a constant periodic rate of return on the group's net investment outstanding in respect of the leases.

Employee benefits are usually reported as a liability if the employee has provided work in exchange for benefits payable in the future and are recognized as an expense if the entity has received the economic benefit resulting from the work provided by an employee in exchange for future benefits.

Long-service rewards and death benefits are granted on the basis of a company agreement. Measurement of obligations to pay benefits is carried out by applying the projected unit credit method. This method takes into account both the claims for payment of long-service rewards and death benefits and the acquired pension rights known as of the balance sheet date, and payments of long-service rewards and death benefits expected in the future.

In 2009, SMA Solar Technology AG introduced value-based life-long working-time accounts. Under certain conditions, employees may have time credits or special benefits reposted to these value accounts. They may take paid leave of absence at a later date using the credit balances extrapolated. The employees' value claims are protected against insolvency and are reinsured. These decreased by €0.1 million in the 2022 fiscal year (2021: €0.4 million additions).

Sales from goods deliveries is recognized at the time of transfer of control. Advance payments on partial deliveries are reported as liabilities from advance payments received within contractual obligations and explained under other liabilities in section 23. For transportation services, which constitute a performance obligation in their own right, revenue is recognized on a time proportion basis. Sales revenue from services, provided these services are not rendered over time, is recognized at the point in time at which the obligation to the customer is satisfied in accordance with IFRS 15.38. Sales from services recognized at a point in time are generated by the SMA group when commissioning large-scale projects and carrying out repair orders. Revenue from services rendered over time, including extended warranty or service/maintenance contracts, is recognized over the contractual periods to which these services relate according to the output-based customer perspective. The output-based method leads to an accurate presentation as it best represents the value of the goods and services transferred in the context of the constant commitment to the customer. Cash inflows received in advance do not contain any material finance components. They are the result of a number of end-customer contracts each with small individual contract

volumes. With regard to the delivery of goods, in the Home Solutions and Commercial & Industrial Solutions segments full payment is made on delivery depending on the transfer of control, while in the Large Scale & Project Solutions segment advance payments on deliveries are often made in addition to this. These are recognized in revenue upon full delivery depending on the transfer of control. Services provided over time, such as valuable extended warranties in the Home Solutions and Commercial & Industrial Solutions segments, are paid mainly in full in advance. They are reported as non-current contractual obligations and recognized in revenue over the contractual term. Service and maintenance contracts in the Large Scale & Project Solutions segment are paid beforehand over shorter periods, generally for a period of 12 months. Over this period, they are recognized in revenue in line with the passage of time. There were no significant changes in the balances of assets and contractual obligations as defined in IFRS 15.118 in 2022. Depending on the region and product group, the products of the SMA group are sold with a factory warranty of 2, 5, 10, 15 or 25 years. The factory warranty includes the statutory warranty and grants the right to an exchange or replacement in the case of defects that are not caused by external factors.

There are no general rights of return for sold products. Transaction prices are not adjusted retroactively.

Customer bonuses in the Home Solutions segment are reported as contract liabilities. The reported sales revenue and impairment on receivables relate exclusively to items from contracts with customers as defined in IFRS 15.

Expected contractual penalties (malus payments) are recognized as contractual obligations.

Contract assets arising from contracts with customers are reported under the balance sheet item "Other financial assets."

In the case of customer contracts under which multiple performance obligations recognized at different points in time are sold for a single transaction price or a discount has to be assigned, there is an allocation of the transaction price. This allocation is based on the ratio between the individual sale prices, which are determined based on historical prices for comparable customers in comparable circumstances. If different options are available, the probability of their being exercised is assessed based on comparable cases. As of December 31, 2022, the total amount of outstanding performance obligations came to €2,077.4 million (December 31, 2021: €886.6 million). Of this amount, €1,700.7 million was attributable to product business (December 31, 2021: €408.8 million). In the product business, revenue will mainly be realized in 2022. €376.7 million of the order

backlog was attributable to service business (December 31, 2021: €477.8 million). The previous year's figure still included an order backlog in the high double-digit million range that was cancelled in the course of the termination of a long-term contract for operation and maintenance (O&M) services for PV power plants in 2022. Revenue in the service business will be largely recognized in the next five to ten years.

Interest income is recognized when an interest claim has accrued (using the effective interest rate, i. e., the internal rate used to discount estimated future cash inflows over the expected term of the financial instrument to the net book value of the financial asset). **Dividend income** is recognized when the right to receive payment is established.

Current **tax receivables and tax liabilities** for the ongoing and for previous periods are measured at the amount which is expected to be reimbursed by the tax authority or to be paid to the tax authority. Tax rates and tax laws applicable on the balance sheet date are used to calculate this amount. Income taxes include current and deferred taxes. Current and deferred taxes that relate to circumstances stated directly in equity are not recognized in the income statement but in equity.

Deferred taxes are calculated according to IAS 12 based on the standard international balance-sheet-related liability method. This requires deferred tax items to be recognized for all temporary differences between the tax base of an asset or liability and the carrying amount in the consolidated balance sheet as well as for tax loss carryforwards. However, deferred tax assets are recognized only if there will be sufficient taxable income available in the future.

Deferred taxes are measured using the tax rates that, under current legislation, would apply in the future on the probable date of reversal of the temporary differences. The effects of amendments to tax legislation on deferred tax assets and liabilities are recognized in profit or loss in the period in which the material conditions for such amendments to come into force arise. Deferred tax assets and liabilities are not discounted according to the regulations of IAS 12. Deferred tax assets and deferred tax liabilities are offset at the same maturity, provided that they relate to the same entity.

As a result of the rapid devaluation of the Turkish lira, Turkey is classified as hyperinflationary. Accordingly, IAS 29 "Financial Reporting in Hyperinflationary Economies" is applicable. To reflect the change in purchasing power, non-monetary assets and liabilities as well as equity and other comprehensive income have to be translated into a measuring unit valid at the reporting date.

This is carried out on the basis of a general price index. Monetary items are not translated because they are already expressed in terms of a measuring unit current at the balance sheet date. The Turkish subsidiary was established in October 2021 and is in the start-up phase. A review has shown that the effect resulting from the purchasing power adjustment is insignificant at the group level. It is therefore not taken into account. This assessment is reviewed on an ongoing basis.

2.4. SIGNIFICANT JUDGEMENTS, ESTIMATES AND ASSUMPTIONS

Preparation of the Consolidated Financial Statements requires the company management to make judgements, estimates and assumptions that affect the amounts of revenues and expenses, assets and liabilities reported on the reporting date as well as the disclosure of contingent liabilities. Uncertainty related to these assumptions and estimates may lead to results that require material adjustments to the book values of the relevant assets or liabilities in the future. When applying the accounting and valuation policies, the company management made judgements, which had a significant effect on the amounts recognized in the Consolidated Financial Statements.

The key assumptions concerning the future and other key sources of estimation uncertainty on the reporting date associated with a significant risk of causing a material adjustment to the book values of assets and liabilities during the next fiscal year are explained below:

For the purpose of determining necessary **inventory** impairments, devaluations are estimated for discontinued products and for surplus stocks of non-product-specific materials, as these stocks are no longer expected to be used in the production process. In the estimate, SMA Solar Technology AG uses a time horizon of 36 months for the usage of the items to calculate the surplus inventories. For inventory items that are exclusive to a discontinued product and for which there is also no use in service, the assumption is that 100% impairment is required.

Development expenses are capitalized when all required conditions are given. Initial capitalization of expenses is based on an estimate by the company management that a project's technical and economic feasibility has been proven. This is normally the case when a development project has reached a specific milestone or a specific quality gate in the development process. When determining the amounts to be capitalized, the company management makes further valuation assumptions regarding the amount of expected future cash flows from assets, the discounting rates to

be applied and the period of inflow of expected future cash flows generated by assets. With this in mind, development expenses of €35.2 million (2021: €27.4 million) were capitalized in the 2022 fiscal year. In addition, research and development expenses of €51.6 million (2021: €50.2 million) were incurred.

In the case of **provisions** for warranty obligations, provisions for expected equipment failures during the warranty period are taken into account in addition to specific individual items. In the case of warranty risks, an obligation of five or ten years is generally adopted as a base. The expected warranty expenditure is based on historical values in previous fiscal years. Depending on the amount, expenses are forecasted based on historical values and then allocated to forecasted undesirable developments. The undesirable developments are based on historical values of the different product groups. This provides a forecast for the future development of group-wide warranty costs. Individual facts are recognized separately if they are not part of the general warranty provisions. This may be the case if they are to be assessed separately on the basis of their significance, or if they represent a special circumstance that has not yet been reflected in historical values. The value of the provision for individual cases and general warranty risks amounted to €119.2 million as of December 31, 2022 (December 31, 2021: €145.5 million). Further provisions are recognized for current legal or constructive obligations to third parties whose due date or amount are uncertain if these obligations are based on past business transactions or events, are likely to lead to outflows of assets and these outflows can be reliably determined. The amount of the provisions is based on the anticipated expenses that are estimated on the basis of an assessment of the circumstances in the individual case using historical values, results of comparable circumstances, or estimates by internal or external experts. The estimates are based on an analysis of the main influencing parameters. If the effect is material, the resulting nominal provision requirements are discounted at a market interest rate for debt capital before taxes that takes account of the term and risks. More information is provided in Section 19. Provisions.

For the measurement of **provisions for anticipated losses** from the termination of a long-term contract for operation and maintenance (O&M) services for PV power plants, various estimates were made for different factors that have a significant influence on the amount of the provision for anticipated losses. New findings have emerged here over time. On the one hand, the current interest rate development has led to a change of the risk-adjusted interest rate used for discounting. On the other, signing the termination agreements with the individual plant owners has resulted in new findings regarding the amount and timing of payments. The total expense is mainly made up of a fixed one-time payment for withdrawal from the contract, which was paid almost in full in 2022,

liquidated damages still to be paid in the future, and rebates to be granted in the future or compensation payments (cash conversion) for unused rebates.¹ The operating obligations under the contract have been largely completed as of the balance sheet date. The maximum period for the payments is still 8 years. The provision amounts to €24.0 million as of the reporting date (December 31, 2021: €47.7 million) and is reported under other provisions.

Sales from long-standing service and maintenance contracts and extended warranties are collected over the contract term as sales because a linear progression of warranty costs is adopted as the best possible estimation method. Whether bonus or malus payments can be expected is based on the available information and historical values.

On each balance sheet date, the SMA group examines whether there are indicators for an impairment of **non-financial assets**. Estimating the value in use requires the company management to make an estimate of the expected future cash flows from the asset or the cash-generating unit (CGU) and to choose a suitable discount rate. The discounted cash flows are then used to determine the present value of the asset or cash-generating unit. No impairments were recognized on non-financial assets in 2022.

On each balance sheet date, the SMA group examines whether there are indicators for an impairment of non-financial assets or cash-generating units. The segments of the SMA group were identified as CGUs. A discounted cash flow (DCF) method is used to determine the recoverable amount in order to calculate the value in use of the CGUs. The book values of all three CGUs continued to be exceeded. The recoverable amount for the Home Solutions segment is €388.0 million (book value: €44.7 million), €193.3 million (book value: €25.8 million) for the C&I Solutions segment and €472.3 million (book value: €97.0 million) for the Large Scale & Project Solutions segment. To determine the recoverable amount, the value in use of the CGU is determined using the DCF method; this is based on certain assumptions. A significant portion is based on planning assumptions as used in the detailed three-year plan (2023–2025) developed by the Managing Board and management and approved by the Supervisory Board. For this purpose, external market forecasts are supplemented by internal organizational assessments by the specialist departments.

¹ Liquidated damages are defined as generalized compensation for reduced output of the individual PV power plants as regulated in the contract.

Dynamic growth is expected for the markets relevant for the SMA group, which is in line with the expansion of renewable energies, the decentralization of energy supply and the increasing demand for energy. The SMA group is continuously working on the product portfolio in all segments in order to participate in market growth through cost-optimized existing products as well as the introduction of new systems and solutions, where the timely introduction of new products or the cost reduction for existing products will have a significant influence on the development of sales and thus profitability. On the cost side, the detailed three-year plan takes into account increases in the cost of materials in 2023, while we assume a stable price level for subsequent years. To be prepared for participation in the expected market growth and the associated increases in sales, cost increases due to the expansion of the workforce and functional costs rising in proportion to sales have been taken into account. These assumptions are essentially the same for all three CGUs. Significant input parameters in the calculations that go beyond this include the growth rate for the period after the detailed plan and the discount rate used. A uniform growth rate of 1% is assumed for the reporting period (from 2026) extending beyond the detailed plan phase (2021: 1%). A weighted capitalization interest rate of 12.14% (2021: 10.91%) was used for discounts.

Deferred tax assets are recognized for all unused tax loss carryforwards to the extent that it is probable that there will be sufficient taxable profit to enable the loss carryforwards to actually be used. Determining the amount of deferred tax assets requires the company management to use significant discretion regarding the expected time of accrual and the amount of taxable income in the future as well as regarding future tax planning strategies. Current corporate planning over a planning horizon of three years was used as a basis for calculating future taxable earnings. Deferred tax assets for loss carryforwards of €64.7 million (2021: €23.8 million) were recognized in the 2022 fiscal year, which mainly related to domestic loss carryforwards. If the future planned domestic taxable earnings are 5% or 10% lower in the three planning years, this could result in impairment losses on deferred tax assets of €2.3 million and €4.6 million respectively.

3. Segment reporting

The segments of the SMA group are described in the organizational and reporting structure on page 14 as well as individually explained in Results of Operations in the Management Report on page 72 et seq. SMA's segment structure has not changed in comparison with the previous year.

Segment	Activities
Home Solutions	In the Home Solutions segment , the SMA group caters to global markets for private PV systems with and without storage systems and connections to a smart home solution. Our SMA Energy System Home provides an end-to-end, single-source system package featuring all the hardware, software and service components required for an independent and cost-effective household energy management. It comprises single- and three-phase string inverters in the Sunny Boy and Sunny Tripower product families in the output range of up to 12 kW, integrated services, energy management solutions, storage systems with the Sunny Island, Sunny Boy Storage and Sunny Tripower Storage Smart Energy product families as well as charging solutions for electric vehicles. They form a comprehensive smart home solution. Communication products and accessories, services, such as extended warranties, spare parts and modernization of PV systems (Repowering) to enhance performance, as well as digital energy services complete the offering. With this portfolio of products and services, the SMA group provides solutions for private PV systems in all major photovoltaic markets worldwide.
C&I Solutions	In the Commercial & Industrial Solutions segment , the focus is on global markets for commercial PV systems with and without energy management, battery storage and electric vehicle charging solutions. SMA Energy System Business, featuring ideally matched hardware, software, tools and services, gives commercial enterprises and the real estate industry the option of producing, storing and selling solar power themselves, organizing their companies' energy flows in a transparent and cost-efficient way as well as charging and managing electric vehicle fleets efficiently and sustainably. The solutions comprise the three-phase string inverters of the Sunny Tripower product family with outputs of more than 12 kW and up to 110 kW, storage solutions for the commercial sector in the Sunny Tripower Storage and Sunny Island product families as well as holistic energy management solutions for commercial integrated energy. Solutions for charging management and billing of electric vehicle fleets on the basis of the ennexOS platform, which are implemented by the Commercial & Industrial Solutions segment together with the subsidiary company coneva, complete the offering. The SMA group also offers services and digital services for operational system management up to and including system repowering and expansion in this segment.
Large Scale & Project Solutions	The Large Scale & Project Solutions segment focuses on international PV power plant markets with complete solutions that perform optimal grid service and monitoring functions on the basis of central and string inverters and system controllers. The outputs of the string inverters in the Sunny Highpower product family and the central inverters in the Sunny Central product family in this segment range from 100 kW to the multi-megawatts. Another focus is on storage solutions for large-scale PV and storage power plants with the Sunny Central Storage product family and on solutions for optimized hydrogen production. The portfolio is supplemented by technology and customer services, for example, for the modernization and functional enhancement of PV power plants (Repowering), and operation and maintenance services (O&M business). In addition, the SMA group implements large-scale storage projects in this segment worldwide.

The operating result of the segments is monitored separately by the Managing Board to make decisions on the allocation of resources and to determine the profitability of the segments. Group financing, currency and interest rate hedging and the income tax burden are controlled at the group level and are therefore not allocated to the individual operating segments.

Regarding information on geographical segments, sales are assigned to countries using the destination principle. The company refrains from presenting non-current assets or other items such as the breakdown of sales deductions per segment, as these are not included in monthly reports and the costs of producing this information would be excessively high.

The group measures the performance of its segments through a measurement of segment profit or loss, which is referred to as EBIT in the internal management and reporting system. This measurement comprises gross profit, selling expenses, general

administrative expenses, research and non-capitalized development expenses as well as other operating income (balance of other operating income and expenses).

Segment assets comprise the intangible assets attributed to each segment and its property, plant and equipment, inventories and trade receivables. Segment liabilities include trade payables that are directly attributable to the relevant segments. Internal management reporting is in line with the accounting policies of external reporting.

The transfer prices between the business segments are determined using management prices based on usual arm's length market conditions. Income from external third parties is reported using the same valuation parameters as shown in the income statement.

No asymmetrical allocations are made to individual segments.

Financial ratios by segments and regions

in € million	External product sales		External services sales		Total sales		Operating profit (EBIT)	
	2022	2021	2022	2021*	2022	2021*	2022	2021*
Segments								
Home Solutions	322.6	251.0	12.4	14.4	335.0	265.4	53.8	37.6
C&I Solutions	285.1	242.9	5.2	2.5	290.3	245.4	-26.0	-18.0
Large Scale & Project Solutions	378.5	422.6	62.1	50.0	440.6	472.6	-13.5	-62.8
Total segments	986.2	916.5	79.7	66.9	1,065.9	983.4	14.3	-43.2
Reconciliation	0.0	0.0	0.0	0.0	0.0	0.0	17.6	10.0
Continuing operations	986.2	916.5	79.7	66.9	1,065.9	983.4	31.9	-33.2

in € million	Segment assets		Segment liabilities		Capital expenditure		Depreciation and amortization	
	2022	2021*	2022	2021*	2022	2021	2022	2021
Segments								
Home Solutions	79.3	78.7	8.0	3.4	12.7	11.1	1.2	3.6
C&I Solutions	95.1	98.4	5.3	8.1	13.0	13.3	6.0	4.2
Large Scale & Project Solutions	275.0	212.4	31.8	30.3	13.4	4.7	3.1	4.1
Total segments	449.4	389.5	45.1	41.8	39.1	29.1	10.3	11.9
Reconciliation	660.6	651.4	601.4	603.8	26.7	27.3	27.8	29.8
Continuing operations	1,110.0	1,040.9	646.5	645.6	65.8	56.4	38.1	41.7

* The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2).

Sales by regions (target market of the product)

in € million	2022	2021*
EMEA	696.3	511.2
Americas	263.0	318.0
APAC	139.6	183.0
Sales deductions	-33.0	-28.8
External sales	1,065.9	983.4
thereof Germany	343.7	253.9

* The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2).

Reconciliation of the segment figures to the correlating figures in the Financial Statements is as follows:

in € million	2022	2021*
Total segment earnings (EBIT)	14.3	-43.2
Elimination	17.6	10.0
Consolidated EBIT	31.9	-33.2
Financial result	3.0	-0.7
Earnings before income taxes	34.9	-33.9
Total segment assets	449.4	389.5
Other central items and eliminations	163.9	134.6
Centrally administered land and buildings	144.0	162.9
Cash and long-term time deposits	203.6	186.1
Financial instruments not designated and other assets	52.6	97.6
Deferred tax assets and income tax receivables	96.5	70.2
Group assets	1,110.0	1,040.9
Total segment liabilities	45.1	41.8
Other central items and eliminations	178.6	116.4
Financial instruments not designated, liabilities and provisions	418.2	480.4
Income tax liabilities and deferred tax assets	4.6	7.0
Group liabilities	646.5	645.6

* The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2).

Circumstances are shown in the reconciliation, which by definition are not part of the segments. In particular, this comprises unallocated parts of group head offices, including centrally managed cash and cash equivalents, financial instruments, financial liabilities and buildings, the expenses of which are allocated to the segments. Business relationships between the segments are eliminated in the reconciliation.

In 2022, as in the previous year, no customer accounted for a share of more than 10% of group sales.

Notes to the income statement SMA group

For further information on the income statement that is not provided in detail below, please refer to the "Results of operations" section in the Combined Management Report.

4. Other operating income and expenses

Other operating income includes a positive earnings effect of €23.2 million resulting from the sale of two administrative buildings together with land and associated PV systems. These buildings have already been leased to third parties since 2016 and were not used by the company itself. This item also includes government grants of €2.7 million (2021: €1.7 million) and income from foreign currency translation of €28.6 million (2021: €19.1 million).

Other operating expenses of the previous year include a sum of €36.5 million resulting from the addition to the provision for anticipated losses in connection with the termination of the long-term contract for operation and maintenance (O&M) services for PV power plants. In addition, expenses from foreign currency translation in the amount of €37.9 million (2021: €21.4 million) are reported.

5. Employee and temporary employee benefits

in €'000	2022	2021
Wages and salaries	234,060	196,351
Expenses for temporary employees	11,658	12,021
Social security contribution and welfare payments	35,267	31,145
	280,985	239,517

Wages and salaries include expenses in an insignificant amount in connection with bike leasing contracts, attributable to employee benefits.

Voluntary contributions to private pensions amounted to €1.4 million in 2022 (2021: €1.2 million).

The average number of employees in the group amounted to:

	2022	2021
Research and Development	492	471
Production and Service	1,826	1,780
Distribution and Administration	1,087	1,030
	3,405	3,281
Trainees and learners	155	148
Temporary employees	265	270
	3,825	3,699

6. Financial result

in €'000	2022	2021
Result from at-equity-accounted investments	1,286	-304
Interest income	7,854	1,940
Other financial income	0	161
Income from interest derivatives	0	11
Financial income	7,854	2,112
Interest expenses	3,597	1,679
Other financial expenses	2,572	785
Financial expenses	6,169	2,464
Financial result	2,971	-656

The increase in interest income is due to the higher interest rate environment and resulting discounting effects for provisions.

Interest expenses from leases amounted to €0.9 million in the reporting year (2021: €0.8 million). Overall, an increase in interest expense resulted from the higher interest rate environment.

7. Income taxes

Actual income taxes (paid or payable) and deferred taxes are recognized as income taxes. They break down as follows:

in €'000	2022	2021*
Actual income taxes		
for current fiscal year	3,309	7,576
for previous years	-697	12
Deferred taxes		
from temporary differences	17,378	-15,092
from tax loss carryforwards	-40,949	-3,204
Income taxes	-20,959	-10,708

* The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2).

Income taxes comprise trade tax, corporation tax and the solidarity surcharge in Germany as well as comparable income taxes abroad. The expected income tax expense that would result from applying the tax rate of the parent company SMA Solar Technology AG to the IFRS net income before taxes can be reconciled to income taxes shown in the income statement as follows:

in €'000	2022	2021*
Net income before income taxes	34,858	-33,875
Tax rate of the parent company	32.7%	32.8%
Expected income tax expenses	11,415	-11,108
Differences related to differing tax rates domestic and abroad	491	5,385
Effects due to changes in tax rates	-64	727
Tax-free income	-570	-3,916
Non-deductible expenses	402	-719
Tax effects from loss carryforwards	-32,143	-1,086
Taxes relating to previous years	-697	12
Other tax effects	207	-3
Actual income taxes (according to income statement)	-20,959	-10,708
Effective group tax rate	-60.1%	31.6%

* The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2).

The corporation tax rate of 15% and the solidarity surcharge rate of 5.5% are to be applied to corporations based in Germany. In addition, domestic companies and partnerships are subject to trade tax, which is influenced by assessment rates specific to the particular municipality. The average trade tax rate to be applied at the level of the parent company was 16.92% (2021: 16.97%). The overall tax rate of the group's parent company was thus 32.7% (2021: 32.8%).

The average effective group tax rate was affected in particular by the decrease in deferred taxes on loss carryforwards associated with corporate planning, temporary differences and the use of loss carryforwards for current taxes.

The effects of deviations between the relevant tax rates at the level of the domestic and foreign group companies and the overall tax rate at the level of the group's parent company are shown in the reconciliation statement under deviations related to tax rate in Germany and abroad.

No deferred tax was recognized for taxable temporary differences of €52.2 million in connection with shares in subsidiaries as it is possible to control the timing of the reversal of the temporary differences, and it is probable that the temporary differences will not reverse in the foreseeable future.

As of December 31, 2022, there were current income tax receivables amounting to €11.1 million (2021: €9.9 million) and current income tax liabilities of €4.2 million (2021: €6.6 million). Tax liabilities are the result of global business activity and a share of foreign sales of 68.8%. As a result, the SMA group is subject to various tax laws and regulations in other countries. Tax changes in Germany and abroad could affect the tax positions of SMA. In addition to changes of legal regulations, the assessment and interpretation of complex tax regulations, for example the transfer prices, can influence our earnings, financial and asset position. We work closely with tax consulting companies in the individual countries to identify risks, perform regular audits and take appropriate precautions.

In 2022, translation differences of €1.1 million (2021: €1.1 million) resulted from the currency translation of deferred foreign tax assets and liabilities.

Deferred tax assets and liabilities were distributed across the following items:

	2022/12/31		2021/12/31*	
in €'000	Deferred tax assets	Deferred tax liability	Deferred tax assets	Deferred tax liability
Intangible assets	336	-26,797	147	-17,701
Property, plant and equipment	7,523	-3,248	10,153	-3,941
Inventories	17,084	-1,041	16,665	-726
Other assets	3,984	-411	2,612	-4,750
Other provisions	8,046	-4,873	16,110	-2,724
Other liabilities	20,611	-1,069	24,789	-4,500
Gross amount	57,584	-37,439	70,476	-34,342
Loss carryforwards	64,728	0	23,779	0
Tax assets	112	0	0	0
Balancing	-36,997	36,997	-33,978	33,978
	85,427	-442	60,277	-364

* The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2).

The company has examined the right to a possible offsetting of temporary differences by increasing the validity of the financial statements and the better comparability with the financial statements of other companies. For transparency reasons, advance offsetting of deferred tax liabilities for temporary differences against deferred tax assets from loss carryforwards of SMA Technology AG is not used in the gross presentation of deferred tax assets and liabilities.

The deferred tax assets are considered realizable as far as sufficiently high future taxable income is to be expected. This was based on a planning horizon of three years. Based on the current corporate planning in the current fiscal year, deferred tax assets for loss carryforwards of €64.7 million (2021: €23.8 million) were recognized in the 2022 fiscal year.

Of the deferred taxes for loss carryforwards, €59.2 million (2021: €22.5 million) is attributable to domestic loss carryforwards and €5.5 million (2021: €1.3 million) to foreign loss carryforwards.

With €164.0 million (2021: €276.7 million), no deferred taxes were recognized in the 2022 fiscal year on tax loss carryforwards of the group as a whole of €366.7 million (2021: €349.1 million).

The majority of the non-usable loss carryforwards are attributable to SMA Solar Technology AG. As of December 31, 2022, corporation tax loss carryforwards of €296.8 million (2021: €308.6 million) existed, of which no deferred taxes were recognized on €154.2 million (2021: €241.1 million), and trade tax loss carryforwards of €334.0 million (2021: €336.6 million), of which no deferred taxes were recognized on €191.4 million (2021: €269.2 million). These loss carryforwards have no time limit. In the case of foreign companies, the main loss carryforwards also have no limits.

8. Earnings per share

Earnings per share are calculated by dividing the net income attributable to the shareholders by the weighted average of ordinary shares in circulation during the period. The number of shares in the 2022 fiscal year amounted to 34.7 million, as in the previous year.

The net income attributable to the shareholders is the net income after tax. As there were no shares held by the company on the reporting date or any other special cases, the number of ordinary shares issued equated to the number of shares in circulation.

The calculation of earnings in relation to the weighted average number of shares in accordance with IAS 33 resulted in earnings of €1.61 per share for the period from January 1, 2022, to December 31, 2022, with an average weighted number of shares of 34.7 million and earnings of –€0.67 per share for the period from January 1, 2021, to December 31, 2021, with an average weighted number of shares of 34.7 million.

There were no options or conversion options as of the reporting date. Therefore, there were no diluting effects and the diluted and basic earnings per share were the same.

Notes to the balance sheet SMA group

9. Intangible assets

Intangible assets and goodwill evolved in the fiscal years under review as follows:

in €'000	Goodwill	Development projects	Patents/ licenses/rights	Software	Intangible assets in progress	Total
Acquisition costs						
2022/01/01	482	218,412	6,233	55,553	43,398	324,078
Changes in currency	0	-150	0	-8	0	-158
Additions	0	5,279	1	135	30,511	35,926
Disposals (-)	0	656	0	11	0	667
Transfers	0	13,628	27	373	-13,975	53
2022/12/31	482	236,513	6,261	56,042	59,934	359,232
Depreciation and amortization						
2022/01/01	0	202,714	3,518	52,453	2,693	261,378
Changes in currency	0	-150	0	-8	0	-158
Additions	0	6,893	386	2,016	0	9,295
Disposals (-)	0	208	0	7	0	215
2022/12/31	0	209,249	3,904	54,454	2,693	270,300
Net value 2021/12/31	482	15,698	2,715	3,100	40,705	62,700
Net value 2022/12/31	482	27,264	2,357	1,588	57,241	88,932
Acquisition costs						
2021/01/01	482	215,253	6,171	54,161	18,213	294,280
Changes in currency	0	-63	0	4	-1	-60
Additions	0	1,341	28	476	28,095	29,940
Disposals (-)	0	0	14	36	0	50
Transfers	0	1,881	48	948	-2,909	-32
2021/12/31	482	218,412	6,233	55,553	43,398	324,078
Depreciation and amortization						
2021/01/01	0	193,957	3,110	50,257	2,693	250,017
Changes in currency	0	-63	0	-1	0	-64
Additions	0	8,820	422	2,232	0	11,474
Disposals (-)	0	0	14	35	0	49
2021/12/31	0	202,714	3,518	52,453	2,693	261,378
Net value 2020/12/31	482	21,296	3,061	3,904	15,520	44,263
Net value 2021/12/31	482	15,698	2,715	3,100	40,705	62,700

€28.4 million (2021: €25.4 million) of the additions of intangible assets in progress included development projects.

In relation to development projects, amortization of intangible assets is posted in the income statement under cost of sales. In the 2022 fiscal year, they include expenses from the devaluation of a Coneva GmbH development project in the amount of €0.4 million. Amortization of software is allocated to the functional areas dependent on use.

The goodwill is assigned to cash-generating units depending on the organizational structure. The goodwill resulting from the asset deal with Phönix is assigned to the Large Scale & Project Solutions segment (€0.2 million), while that of SMA Magnetics (€0.3 million) is assigned to the Home Solutions segment.

10. Property, plant and equipment

Property, plant and equipment evolved as follows in the 2022 fiscal year:

in €'000	Land and buildings, incl. buildings on third party property	Rights of use for buildings	Technical equipment/machinery	Rights of use for technical equipment/machinery	Other equipment, plant and office equipment	Rights of use for vehicle fleet	Prepayments and assets under construction	Total
Acquisition costs								
2022/01/01	219,275	40,634	75,085	1,028	179,602	8,382	6,405	530,411
Changes in currency	47	-158	-80	0	86	339	113	347
Additions	490	2,454	296	85	1,112	1,411	23,997	29,845
Disposals (-)	1,126	2,443	1,166	43	2,302	2,951	0	10,031
Transfers	5,298	0	2,240	0	6,806	0	-14,292	52
Reclassified to „investment property“ (-)	0	0	0	0	0	0	0	0
Classified „As held for sale“ (-)	0	0	0	0	0	0	0	0
2022/12/31	223,984	40,487	76,375	1,070	185,304	7,181	16,223	550,624
Depreciation and amortization								
2022/01/01	107,970	16,082	49,993	316	158,366	3,511	0	336,238
Changes in currency	59	-118	-35	0	84	72	0	62
Additions	6,678	5,740	4,314	560	9,174	2,222	0	28,688
Disposals (-)	909	735	691	30	2,151	1,693	0	6,209
2022/12/31	113,798	20,969	53,581	846	165,473	4,112	0	358,779
Net value 2021/12/31	111,305	24,552	25,092	712	21,236	4,871	6,405	194,173
Net value 2022/12/31	110,186	19,518	22,794	224	19,831	3,069	16,223	191,845

There are no longer any mortgage liens on fixed assets at the end of the 2022 fiscal year after the debt financing has been repaid in full (2021: €8.0 million).

The additions to rights of use to buildings mainly resulted from the extension and modification of leases in France, Australia and Poland. The additions to assets under construction and the transfers to technical equipment/machinery and other equipment, plant and office equipment include a large number of immaterial investments. The reclassification to “investment property” in the previous year included a partial plot of land that is no longer used by the group itself.

Amounts recognized in the income statement as part of accounting in accordance with IFRS 16:

in €'000	2022	2021
Expenses from short-term leases	316	39
Expenses from leases with low-value assets	727	485

Expenses from short-term leases and from leases with assets of lower value correspond to the cash outflows.

Property, plant and equipment evolved as follows in the 2021 fiscal year:

in €'000	Land and buildings, incl. buildings on third party property	Rights of use for buildings	Technical equipment/machinery	Rights of use for technical equipment/machinery	Other equipment, plant and office equipment	Rights of use for vehicle fleet	Prepayments and assets under construction	Total
Acquisition costs								
2021/01/01	223,747	36,420	69,790	1,053	180,323	5,729	7,114	524,176
Changes in currency	130	177	62	0	274	273	20	936
Additions	58	5,604	87	0	938	3,285	16,489	26,461
Disposals (-)	119	1,567	1,373	25	7,013	905	0	11,002
Transfers	5,651	0	6,519	0	5,080	0	-17,218	32
Reclassified to "investment property" (-)	9,253	0	0	0	0	0	0	9,253
Classified "As held for sale" (-)	939	0	0	0	0	0	0	939
2021/12/31	219,275	40,634	75,085	1,028	179,602	8,382	6,405	530,411
Depreciation and amortization								
2021/01/01	100,014	11,813	47,149	324	155,512	2,184	0	316,996
Changes in currency	99	128	47	0	229	68	0	571
Additions	7,975	5,703	4,074	-8	9,376	2,119	0	29,239
Disposals (-)	118	1,562	1,277	0	6,751	860	0	10,568
2021/12/31	107,970	16,082	49,993	316	158,366	3,511	0	336,238
Net value 2020/12/31	123,733	24,607	22,641	729	24,811	3,545	7,114	207,180
Net value 2021/12/31	111,305	24,552	25,092	712	21,236	4,871	6,405	194,173

11. Investments in joint ventures

SMA holds a 42,0% interest in elaxon GmbH, a joint venture in the field of charging infrastructure facilities.

The financial information is as follows:

in €'000	2022/12/31	2021/12/31
Net assets elaxon	3,523	652
Holdings (%)	42.00	42.00
Group share in the net assets	1,480	274
Goodwill	0	0
Other adjustments	260	180
Book value of the group investments	1,740	454

A loan issued by SMA is reflected in the information on related parties.

12. Investment property

in €'000	2022/12/31	2021/12/31
Level at the beginning of the year	14,521	17,988
Transfers property, plant and equipment (net book value)	-104	9,253
Depreciation and amortization (-)	143	961
Transfers to "Assets available for sale"	0	11,759
Level at the end of the reporting period	14,274	14,521
Income and expenses included in the profit and loss account		
in €'000	2022	2021
Rental income	2,588	2,316
Attributable expenses	507	539

The SMA group rents several buildings and plots of land. This is allocated on the balance sheet to the item "Investment property."

The tenancy agreements for the buildings do not contain any conditional rental payments, but they each offer an option to extend, which can be exercised by the tenant. The original non-cancelable rental period was five or six years. If the extension options are not exercised by the tenants, the agreements will end in 2026 at the latest. The distribution of rental income expected in the future is shown in the table below.

in € million	< 1 year	> 1 – 5 years	> 5 years	Total
Rental income	1.0	1.3	0.0	2.3

13. Inventories

SMA group inventories are made up as follows:

in €'000	2022/12/31	2021/12/31
Raw materials, consumables and supplies	144,149	99,609
Unfinished goods, work in progress	12,718	9,164
Finished goods and goods for resale	135,289	137,335
Prepayments	16,512	26,916
	308,668	273,024

Inventories are measured at the lower value of the cost of acquisition or sales and net realizable value. The balance of impairment accounts amounted to €27.3 million as of the end of the fiscal year (2021: €35.4 million). They are not allocated to the segments in the segment reporting. The addition to impairment on inventories, included under expenses as cost of sales, amounted to €10.2 million (2021: €9.1 million). Reversals of impairment losses of €0.9 million were recognized in the fiscal year (2021: €3.9 million). The carrying amount of inventories written down amounted to €12.3 million as of December 2022 (2021: €9.5 million).

14. Trade receivables and other receivables

Trade receivables are non-interest-bearing and usually due between 14 and 90 days. No significant extensions to payment terms were granted in the reporting period. It is possible that different payment terms are granted in project business.

The other receivables mainly comprise prepaid expenses.

The age structure of trade receivables was as follows on the reporting dates:

in €'000	Book value	Neither overdue nor impaired	Not impaired portion of overdue receivables			
			< 30 days	30 to 60 days	60 to 90 days	> 90 days
2022	153,528	122,410	22,422	4,857	3,839	0
2021	142,674	114,919	11,482	3,571	2,156	10,546

As of December 31, 2022, value adjustments with a nominal value of €20.3 million (2021: €21.7 million) were carried out on aging trade receivables. No additional impairments beyond the simplified impairment model were recognized on overdue trade receivables of €31.1 million as of December 31, 2022 (December 31, 2021: €28.1 million), as there were no significant changes in the credit rating of the customers. Settlement of the receivables is expected. The credit rating of customers with whom trade receivables exist, which are neither overdue nor impaired, is considered to be good.

The impairment account of trade receivables evolved as follows:

in €'000	Specific valuation allowance	Value correction on portfolio basis	Total
As of 2021/01/01	21,968	411	22,379
Additions with effect on the expenses (net)	3,169	33	3,202
Usage	-1,186	0	-1,186
Release	-2,809	-59	-2,868
Exchange rate difference	113	18	131
As of 2021/12/31	21,255	403	21,658
Additions with effect on the expenses (net)	5,370	100	5,470
Usage	-3,484	0	-3,484
Release	-3,463	-174	-3,637
Exchange rate difference	234	12	246
As of 2022/12/31	19,912	341	20,253

The balance of additions and reversals shown in the income statement was influenced by relatively higher reversals in the previous year. Furthermore, no adjustments had to be made for other receivables. With regard to other financial assets, please refer to the information below under section 15. The receivables are adjusted individually based on individual assessments. The maximum default risk equates to the carrying amount shown in the balance sheet.

15. Other financial assets and value added tax receivables

The other non-current financial assets mainly include loan receivables from joint ventures.

The other current financial assets as of December 31, 2022, include in particular financial assets and time deposits with a term to maturity of more than three months and accrued interest totaling €38.3 million (2021: €105.9 million). Receivables from tax authorities from sales tax refund claims of €18.5 million were recognized as of December 31, 2022 (2021: €27.4 million).

16. Cash and cash equivalents

Cash and cash equivalents comprise cash in hand as well as bank balances, checks, payments in transit and deposits with an original term to maturity of less than three months. Bank balances bear interest at variable interest rates applicable to deposits subject to call.

As of December 31, 2022, the SMA group had unused credit lines amounting to €74.6 million (2021: €72.5 million), for which all conditions for use had been met.

17. Assets and asset groups held for sale

Buildings that had previously been leased and were held for sale, including the land and associated PV systems, were sold in the third quarter of the fiscal year. After deduction of all costs, the proceeds from the sale amounted to €23.2 million.

18. Equity

The change in equity, including effects not recognized in profit or loss, is shown in the statement of changes in equity. Significant effects arose from net income and the effects of foreign exchange gains/losses from the foreign currency translation of foreign subsidiaries.

The capital reserve contains agio amounts from the issuance of SMA Solar Technology AG shares.

The retained earnings contain mainly the retained profit and the statutory reserve. In addition, retained earnings include other components of equity such as unrealized gains/losses from the foreign currency translation of foreign subsidiaries.

Shares in SMA AG are no-par value bearer shares, which were fully paid in.

The Articles of Incorporation include the provisions on the powers of the Managing Board regarding Authorized Capital II. The Managing Board, after obtaining the consent of the Supervisory Board, is entitled to increase the share capital on one or several occasions by up to a total of €3.4 million by issuing new bearer shares in return for cash contributions and/or contributions in kind in the period ending May 23, 2023. The Managing Board, with the consent of the Supervisory Board, is entitled to cancel the statutory subscription rights of shareholders: (a) in the case of capital increases in return for contributions in kind for the acquisition of or investment in companies, parts of companies or investments in companies, (b) for the purpose of issuing shares to employees of the company and companies affiliated with the company, (c) to exclude fractions, and (d) in the case of capital increases in return for cash contributions if the issue amount of the new shares does not fall significantly below the stock exchange price of shares of the same class and terms that are already listed at the time the Managing Board sets the final issue amount, and the total pro rata amount of the issued capital attributable to the new shares in respect of which the subscription right is excluded may not exceed 10% of the issued capital available at the time the new shares are issued.

Furthermore, following a resolution adopted by the Annual General Meeting on June 1, 2021, the Managing Board, in the period up to May 30, 2026, is entitled on behalf of the company to acquire its own shares up to a value of 10% of the existing capital stock at the time the resolution was adopted by the Annual General Meeting and to dispose of shares acquired in this way with the consent of the Supervisory Board by means other than through the stock exchange or an offer made to all the shareholders, provided the shares are sold in return for cash at a price that does not fall significantly below the stock exchange price of shares in the company issued under the same terms or the shares are sold in return for in-kind contributions, or they are offered in return for shares held by persons that either had or have an employment relationship with the company, or with one of its affiliated companies, or members of bodies in companies that depend on the company. Furthermore, if the Managing Board sells the company's own shares by offering them to all the shareholders with the consent of the Supervisory Board, the Managing Board is entitled to exclude the shareholders' right of subscription for fractions. In addition, the Managing Board is entitled to cancel any own shares acquired after obtaining the consent of the Supervisory Board.

The Annual General Meeting of SMA Solar Technology AG held on May 31, 2022, followed the Managing and Supervisory Boards' proposal to distribute no dividend for the 2021 fiscal year (2020: €0.30 per dividend-bearing share).

The objectives of capital management are to maintain SMA's financial substance and ensure necessary flexibility.

The equity ratio is used to measure the financial security of SMA. This is the ratio of equity shown in the consolidated balance sheet to total assets. Accordingly, the financing structure is characterized by a conservative capital structure dominated by internal financing. As of the reporting date, the equity ratio was 41.8% (2021: 38.7%). External financing occurs almost exclusively through liabilities arising from operative business.

19. Provisions

Provisions accounted for all discernible risks from pending transactions and contingent liabilities on the balance sheet dates and broke down as follows:

in €'000	Warranties	Personnel	Other	Total
As of 2022/01/01	145,452	5,693	57,753	208,898
Additions	47,147	1,019	21,397	69,563
Usage	54,339	310	41,567	96,216
Release	15,511	526	2,832	18,869
Compounding	-4,648	16	-3,758	-8,390
Changes in currency	1,099	73	2,988	4,160
As of 2022/12/31	119,200	5,965	33,981	159,146
Current in 2022	41,009	2,509	22,936	66,454
Non-current in 2022	78,191	3,456	11,045	92,692
	119,200	5,965	33,981	159,146

in €'000	Warranties	Personnel	Other	Total
As of 2021/01/01	152,094	4,453	11,030	167,577
Additions	50,459	1,895	52,268	104,622
Usage	49,144	666	3,510	53,320
Release	8,525	0	2,147	10,672
Changes in currency	568	11	112	691
As of 2021/12/31	145,452	5,693	57,753	208,898
Current in 2021	64,747	1,892	37,828	104,467
Non-current in 2021	80,705	3,801	19,925	104,431
	145,452	5,693	57,753	208,898

The provisions for statutory warranties are attributable to the segments as follows:

in €'000	2022/12/31	2021/12/31
Home Solutions	37,484	49,437
C&I Solutions	38,798	45,061
Large Scale & Project Solutions	42,918	50,954
	119,200	145,452

Warranty provisions consist of general warranty obligations (periods of between five and ten years) for the various product areas within the group. In addition, provisions are set aside for specific individual cases that are mainly used in the following year. Warranty provisions for specific individual cases amount to €2.4 million (December 31, 2021: €28.0 million) and are expected to lead to cash outflows within one year. Provisions for expected equipment failures during the warranty period amount to €116.8 million (December 31, 2021: €117.4 million). For the short-term portion of €38.6 million, an outflow of funds is expected within one year; for the long-term portion, an outflow of funds is expected within a period of five to ten years.

Personnel provisions mainly include obligations for long-service anniversaries, death benefits and partial retirement benefits. They affect cash in relation to contractual commitments made.

Additions to other provisions include adjustments to provisions for anticipated losses of €14.5 million (for further details, see section 2.3 Significant judgments, estimates, assumptions). In addition, other provisions include in particular restoration obligations, provisions for tax risks and purchase commitments. An outflow of funds for the major part is expected within one year. The changed global interest rate environment led to adjustments in the discounting of provisions in the fiscal year. In total, there were interest effects of €8.4 million.

20. Financial liabilities

in €'000	2022/12/31	2021/12/31
Liabilities due to credit institutions	15	8,362
Derivative financial liabilities	0	7,607
of which liabilities from derivatives outside of hedge accounting	0	7,607
Lease liabilities	23,648	30,687
	23,663	46,656

The liabilities to credit institutions recognized until the previous year for the financing of SMA Immo GmbH & Co. KG real estate and an SMA AG PV system were repaid in full in the 2022 fiscal year. The remaining liabilities relate to the acquisition of office equipment in South Africa. Changes in liabilities to banks and from leases are reflected in the net cash flow from financing activities.

In the previous year, derivative financial liabilities predominantly related to negative market values for currency futures presented in hedge accounting.

The following table shows the development of the SMA group's liabilities including cash-effective and non-cash changes:

	Financial liabilities		Equity		Total
	Financial liabilities	Lease liabilities	Share capital/ capital reserves	Retained earnings	
in €'000					
As of 2022/01/01	15,969	30,687	153,900	254,120	454,676
Change in cashflows from financing activities		0			0
Redemption of loans granted	-15,954	0	0	0	-15,954
Payments for lease liabilities	0	-10,990	0	0	-10,990
Dividends paid	0	0	0	0	0
Total change in cashflows from financing activities	-15,954	-10,990	0	0	-26,944
Other changes					
Effects of changes in exchange rates	0	227	0	0	227
Additions to financial liabilities, non-cash effective	0	0	0	0	0
New lease contract	0	4,279	0	0	4,279
Other non-cash movements and interest	0	-556	0	0	-556
Total other changes, related to liabilities	0	3,950			3,950
Total other changes, related to equity	0	0	0	55,503	55,503
As of 2022/12/31	15	23,647	153,900	309,623	487,185

	Financial liabilities		Equity		Total
	Financial liabilities	Lease liabilities	Share capital/ capital reserves	Retained earnings	
in €'000					
As of 2021/01/01	12,019	29,115	153,900	283,024	478,058
Change in cashflows from financing activities					
Redemption of loans granted	-3,060	0	0	0	-3,060
Payments for lease liabilities	0	-7,292	0	0	-7,292
Dividends paid	0	0	0	-10,410	-10,410
Total change in cashflows from financing activities	-3,060	-7,292	0	-10,410	-20,762
Other changes					
Effects of changes in exchange rates	0	261	0	0	261
Additions to financial liabilities, non-cash effective	7,021	0	0	0	7,021
New lease contract	0	10,408	0	0	10,408
Other non-cash movements and interest	-11	-1,805	0	0	-1,816
Total other changes, related to liabilities	7,010	8,864			15,874
Total other changes, related to equity			0	-18,494	-18,494
As of 2021/12/31	15,969	30,687	153,900	254,120	454,676

21. Trade payables

Trade payables are non-interest bearing and are normally due within 14 to 90 days.

22. Other financial liabilities

The other financial liabilities include costs for preparing the financial statements and are due within one year.

23. Other liabilities

in €'000	2022/12/31	2021/12/31*
Contract liabilities	285,305	226,183
Accrual item for extended warranties	165,996	169,098
Liabilities from prepayments received	90,220	24,206
Accruals for service and maintenance contracts	16,588	14,527
Other contract liabilities, current	12,501	18,352
Liabilities in the Human Resources department	36,705	17,644
Other non-financial liabilities	3,061	4,703
	325,071	248,530
Current	170,300	88,333
Non-current	154,771	160,197
	325,071	248,530

* The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2).

Liabilities from advance payments received for deliveries of goods included in contractual obligations increased significantly due to the completion of a major project in the U.S. Other contract liabilities entail accrual items for extended warranties, service and maintenance contracts and bonus agreements. Non-current contractual obligations mainly include liabilities from chargeable extended warranties granted for products from the Home Solutions and Commercial & Industrial Solutions business units. The fulfillment of the non-current contractual obligations will extend over a period of 5 to 15 years from the start of the extended warranties. Current contractual obligations mainly include prepayments received, accruals for service and maintenance contracts and bonus agreements. The current contractual obligations will mostly be fulfilled within the next 12 months.

In the fiscal year, revenues in the amount of €22.5 million (2021: €22.4 million) were realized, which were included in the balance of contract liabilities at the beginning of the period.

Liabilities in the Human Resources department contain obligations to employees regarding performance-based bonuses and positive vacation and flextime balances, Christmas bonus as well as variable salary components, contributions to the workers' compensation association and to social insurance systems as well as for a voluntary one-time payment. Other non-financial liabilities include liabilities to tax authorities amounting to €1.9 million (2021: €3.3 million), which chiefly consist of tax liabilities from payroll accounting, and liabilities from subsidies received in the amount of €0.6 million (2021: €0.5 million), which include taxable government grants from funds of the common-task program "Improvement of the Regional Economic Structure" (EU GA), granted as investment subsidies.

24. Additional disclosures relating to financial instruments

in €'000	Assessment category according to IFRS 9	2022/12/31	2021/12/31
		Book value	Book value
Cash and cash equivalents	AC	165,355	113,978
Trade receivables	AC	153,528	142,674
Other financial assets		63,857	136,350
of which other financial investments	FVOCI	3	3
of which institutional mutual funds	FVPL	38,290	105,857
of which other (time deposits)	AC	25,564	30,490
Trade payables	AC	133,449	134,026
Financial liabilities		23,663	46,656
of which liabilities due to credit institutions	AC	15	8,362
of which lease liabilities	--	23,648	30,687
of which derivatives that do not qualify for hedge accounting	FVPL	0	7,607
Other financial liabilities	AC	568	538
Of which aggregated according to valuation categories in accordance with IFRS 9			
Financial assets measured at amortized cost	AC	344,447	287,142
Financial liabilities measured at amortized cost	AC	134,032	142,926
Financial assets measured at fair value through profit and loss	FVPL	38,290	105,857
Financial liabilities measured at fair value through profit and loss	FVPL	0	7,607
Fair value through other comprehensive income	FVOCI	3	3

The book values represent reasonable approximations of the fair values of the assets and liabilities, which is why a separate indication of the fair amounts is omitted. The fair value of liabilities to credit institutions also differs only insignificantly from the book value.

Cash and cash equivalents, trade receivables and time deposits mainly have short terms to maturity. Accordingly, their book values on the reporting date were almost identical to their fair value.

The fair values of other non-current receivables correspond to the present values of the payments related to the assets while taking into account current interest parameters, which reflect market- and partner-related changes in conditions and expectations (level 2).

Other financial investments relate to investments not included in the scope of consolidation.

Trade payables and other current financial liabilities normally have short terms to maturity. The recognized values are almost identical to the fair values.

Fair values of other non-current financial liabilities are determined by referring to the present values of the payments associated with the debts. For discounting, term-related commercially available interest rates are used (level 2).

For most borrowings, the fair values are not materially different from the book values, as interest payments on these borrowings are either close to current market rates or borrowing is short-term.

Derivative financial instruments are used to hedge against currency risks arising from operative business. These include currency futures and options inside and outside of hedge accounting. In principle, these instruments are only used for hedging purposes. As is the case with all financial instruments, they are recognized at fair value upon initial recognition. The fair values are also relevant to subsequent measurements. The fair value of traded derivative financial instruments is identical to the market value. This value may be positive or negative. The measurement of forward transactions is based on forward contract rates. The parameters that were used in the valuation models are in line with market data.

As of the reporting date, there were no longer any currency derivatives to be measured at fair value.

The following table shows the allocation of our financial assets and liabilities measured at fair values in the balance sheet, using the three levels of the fair value hierarchy:

The levels of the fair value hierarchy and their application to our assets and liabilities are described below.

Level 1: Quoted prices for identical assets or liabilities in active markets

Level 2: Inputs other than quoted prices that are observable directly (e.g., prices) or indirectly (e.g., derived from prices)

Level 3: Inputs that are not based on observable market data for assets and liabilities

The institutional mutual funds are valued based on observable market prices.

in €'000				
2022	Level 1	Level 2	Level 3	Total
Financial assets, measured at fair value				
Institutional mutual funds	38,290	0	0	38,290
Other financial investments	0	0	3	3
2021	Level 1	Level 2	Level 3	Total
Financial assets, measured at fair value				
Institutional mutual funds	105,857	0	0	105,857
Other financial investments	0	0	3	3
Derivative financial instruments	0	7,607	0	7,607

The 2022 net results for financial instruments are as follows:

in €'000	From interest	From subsequent measurement		From disposal	Net result
		Currency translation	Value corrections		
Financial assets measured at amortized cost (AC)	292	2,491	1,833	-40	4,576
Financial liabilities measured at amortized cost (AC)	-50	0	0	0	-50
Financial assets measured at fair value through profit and loss (FVPL)	-698	0	-7,584	-4,162	-12,444
Financial liabilities measured at fair value through profit and loss (FVPL)	-2,572	0	0	0	-2,572
Total	-3,028	2,491	-5,751	-4,202	-10,490

The 2021 net results for financial instruments are as follows:

in €'000	From interest	From subsequent measurement		From disposal	Net result
		Currency translation	Value corrections		
Financial assets measured at amortized cost (AC)	-629	8,897	334	-88	8,514
Financial liabilities measured at amortized cost (AC)	-24	0	0	0	-24
Financial assets measured at fair value through profit and loss (FVPL)	-862	0	-5,858	-5,433	-12,153
Financial liabilities measured at fair value through profit and loss (FVPL)	-784	0	11	0	-773
Total	-2,299	8,897	-5,513	-5,521	-4,436

Interests from financial instruments are shown in the financial result. The SMA group recognizes other components of the net result in other operating expenses and other operating income.

In detail, the nominal payment obligations of financial liabilities are as follows:

in €'000	Book value	Total cash flows	< 1 year	1 to 3 years	4 to 5 years	> 5 years
2022						
Trade payables	133,449	133,449	133,449	0	0	0
Financial liabilities	23,663	26,129	7,403	10,744	3,257	4,725
of which from liabilities due to credit institutions	15	15	6	9	0	0
of which from lease liabilities	23,648	26,114	7,397	10,735	3,257	4,725
of which from derivatives outside of hedge accounting	0	0	0	0	0	0
Other financial liabilities	568	568	568	0	0	0
2021						
Trade payables	134,026	134,026	133,956	70	0	0
Financial liabilities	46,656	51,058	18,596	16,882	8,258	7,322
of which from liabilities due to credit institutions	8,362	8,947	2,674	4,130	2,143	0
of which from lease liabilities	30,687	34,504	8,315	12,752	6,115	7,322
of which from derivatives outside of hedge accounting	7,607	7,607	7,607	0	0	0
Other financial liabilities	538	538	538	0	0	0

25. Other financial obligations

At the end of the reporting period, other financial obligations to third parties under the purchase order commitment for investment orders placed amounted to €8.5 million (2021: €5.0 million). There were financial obligations for intangible assets amounting to €5.9 million (2021: €7.5 million). Obligations from leasing contracts for short-term and low-value leasing objects exist in the amount of €2.5 million (2021: €1.5 million), the other financial obligations are within the normal business practice.

26. Contingencies

The total amount of directly enforceable guarantees issued for obligations of (not fully consolidated) participations is €5.0 million as of the reporting date (2021: €30 thousand). The probability of utilisation is low, as breaches of the commitments given are not to be expected.

In addition, liability declarations were issued to secure the beneficiaries with regard to the fulfilment of contracts by fully consolidated subsidiaries. In the event of non-performance, SMA Solar Technology AG is primarily liable without limitation for the contractual obligations of the secured subsidiaries. A claim is not expected, since a discontinuation of the business operations of the subsidiaries is not likely and the secured companies are equipped in such a way that they meet their contractual obligations.

27. Cash and cash equivalents reconciliation

For purposes of the Consolidated Statement of Cash Flows, cash and cash equivalents include cash on hand, bank balances and short-term deposits with an original term to maturity of less than three months. Cash and cash equivalents at the end of the fiscal year, as presented in the Consolidated Statement of Cash Flows, can be reconciled to the corresponding items of the Consolidated Balance Sheet as follows:

in €'000	2022	2021
Cash on hand and bank balances	164,170	113,690
Short-term deposits (maturity < 3 months)	1,185	288
	165,355	113,978

The SMA group does not have direct access to the financial resources reported in the balance sheet item "Rent deposits and cash on hand pledged as collaterals."

For further information on the statement of cash flows, refer to the "Financial position" section in the Combined Management Report.

Other disclosures

28. Events after the balance sheet date

There were no events after the balance sheet date.

29. Related party disclosures

According to the definition contained in IAS 24, related persons are persons responsible for planning, controlling and monitoring the company's activities. Related persons include the members of the Managing Board and the Supervisory Board of SMA Solar Technology AG as well as their close relatives. Danfoss A/S and elaxon GmbH, based in Aachen, Germany, belong to the group of related entities. The controlling shareholder of Danfoss A/S is Bitten og Mads Clausens Fond, which is allocated the shares held by Danfoss A/S in accordance with Section 39 of the German Securities Trading Act (WpHG).

Related persons:

On the SMA Solar Technology AG Managing Board, Chief Executive Officer Dr.-Ing. Jürgen Reinert is responsible for Strategy, Sales and Service, Human Resources, Operations and Technology. Barbara Gregor is in charge of Finance, Legal and capital market communication.

Dr.-Ing. Jürgen Reinert sits on the supervisory board of Danfoss A/S, Denmark, and in the advisory committee of KraftPowercon, Sweden.

In the fiscal year, the members of the Supervisory Board of SMA Solar Technology AG were as follows:

Shareholder Representative:

Roland Bent, Chief Representative International Standardization, Phoenix Contact GmbH & Co. KG

Kim Fausing, General Manager and CEO Danfoss A/S, Deputy Chairman

Uwe Kleinkauf, General Manager WELL development GmbH,
Chairman

Alexa Hergenröther, Tax Consultant/General Manager

Ilonka Nußbaumer, Senior Vice President,
Head of Group HR Danfoss A/S.

Jan-Henrik Supady, Managing Partner at Liesner & Co. GmbH

Employee Representatives:

Martin Breul

Oliver Dietzel, Trade Union Secretary

Johannes Häde

Yvonne Siebert

Romy Siegert, Trade Union Secretary

Dr. Matthias Victor

Remuneration of key management members of the group, which must be disclosed under IAS 24, includes remuneration of the Managing Board and the Supervisory Board.

The total compensation of the members of the Managing Board amounted to €1.6 million in the reporting year (2021: €1.8 million). All salary components are classified as short-term benefits in accordance with IAS 24.17. The Managing Board members receive no separate remuneration for carrying out tasks at subsidiaries.

The total compensation of the members of the Supervisory Board amounted to €0.4 million in the reporting year (2021: €0.4 million). Of this amount, €0.3 million (2021: €0.3 million) was attributable to non-performance-related fixed compensation and €0.1 million (2021: €0.1 million) to compensation for committee activities. As in the previous year, no variable compensation is included. Kim Fausing and Ilonka Nußbaumer renounce their claims against society. The union representatives pay their salaries.

Members of the Supervisory Board hold the following positions in statutory supervisory boards and similar controlling bodies of commercial enterprises:

Kim Fausing, member of the board at Hilti AG, Liechtenstein,
member of the board at LafargeHolcim AG, Switzerland.

Related entities:

On May 28, 2014, SMA concluded an agreement regarding a close strategic partnership with Danfoss A/S. As part of this partnership, Danfoss acquired a 20% stake in SMA and therefore belongs to the group of related entities. SMA entered into a strategic partnership with Danfoss in the areas of purchasing, sales and research and development. SMA also performs services on behalf of Danfoss. All agreements were concluded under fair market conditions. The business relationships between SMA and Danfoss in the fiscal year are presented in the table below. There is no material collateralization nor are there guarantees. No impairment losses were recognized from transactions with Danfoss.

in € million	2022	2021
Goods acquired by SMA	0.0	1.7
Services acquired by SMA	0.0	0.8
Goods sold by SMA	1.2	0.0
Outstanding receivables at the end of the year	0.5	0.0

Furthermore, elaxon GmbH is recognized as a joint venture. It is a joint venture in the field of charging infrastructure facilities, in which the SMA group holds a 42.00% stake. Loans totaling €2.0 million have been granted to elaxon GmbH by SMA since 2019, which are included in outstanding receivables in the following table.

in € million	2022	2021
Goods acquired by SMA	0.3	0.1
Goods sold by SMA	0.8	0.2
Outstanding receivables at the end of the year	2.1	2.0

30. Objectives and methods concerning financial risk management

Financial risk management is integrated into the group-wide hedging policy. Deliberate treatment of potential risks and sound control as well as successful management of such risks when they occur are supported by an accompanying information and communication policy as well as by further education and training of employees. The principle underlying the group's hedging policy in the financial field is to protect against significant price, currency and interest risks by means of contracts and hedging transactions to an economically reasonable extent.

The financial instruments of the group relate primarily to trade receivables as well as cash and cash equivalents resulting directly from operating activities. In addition, there is a particular amount of trade payables that also arise from operating activities. The group also uses derivative financial instruments as part of exchange and interest rate hedging. The group's main risks in relation to financial instruments are interest-based cash flow risks as well as liquidity, currency and credit risks. The strategies and procedures for controlling individual types of risks defined in the context of the group's overall hedging policy are presented below.

INTEREST RATE RISK

Interest rate risks within the SMA group mainly arise in the case of financial liabilities and non-current portions of certain provisions. Interest on liabilities and provisions is not paid by the contracting party and is therefore discounted at the interest rate usual in the market, which means that there is no separate control of the interest rate risk. The interest on existing financing is hedged on a long-term basis and can thus be calculated over the contract's term. As of the balance sheet date, no such financial instruments were held.

FOREIGN CURRENCY RISK

As a globally active company, the SMA group is exposed to both transaction-related and translation-related foreign currency risks.

SMA assesses risks from an economical point of view. Using this point of view, foreign currency risks arise in the form of direct transaction risks that derive from any (current or planned) receivable or payable denominated in a foreign currency and the resulting payment flow. The SMA group's extensive business activity in North America means that foreign currency risks arise to a great

extent in USD. In light of the fact that a pro-rata portion of the local added value attributable to the North American companies and supplier contracts based on USD is generated locally and sales in the local currency are balanced by expenditure in the local currency, the operational foreign currency risk in the SMA group is limited.

Currency risks also arise in particular from the sales activity of our Australian subsidiary.

An intragroup guideline ensures that SMA companies report their foreign currency risks to Corporate Treasury, provided there are no country-specific restrictions in this regard. The remaining group-wide risk is hedged by Corporate Treasury through the use of currency derivatives concluded externally with banks. Forward exchange transactions are the most commonly used method in this case. The use of options as part of the hedging strategy is also possible.

Translation risks mainly occur because the assets and liabilities of subsidiaries denominated in a foreign currency are converted to the parent company's domestic currency when preparing the Consolidated Financial Statements. Translation risks are not included within the scope of the active control of foreign currency risks.

Items denominated in foreign currencies and the development of the exchange rate of those currencies are monitored continuously and the risks are hedged, provided this is economically reasonable. The risks from hedging transactions in themselves are limited to the possibility that opportunities arising from a better price performance cannot be realized.

To present market risks, IFRS 7 requires sensitivity analyses which show the effects of hypothetical changes in relevant risk variables on earnings and equity. Currency risks are caused by financial instruments that are denominated in a currency other than the functional currency and which are of a monetary nature; differences related to exchange rates from the translation of financial statements into the group currency are not taken into account. The USD, JPY and AUD are relevant risk variables. The currency sensitivity analysis is based on original financial instruments in the form of receivables. Through the use of hedging transactions (derivatives), which are designed to hedge the underlying transaction, the opposing effects that accompany changes in the exchange rates are evened out.

As of the balance sheet date of December 31, 2022, no hedging transactions had been concluded. The fair value measurement thus did not result in any contribution to earnings (2021: -€7.6 million). There are no direct effects on equity. An increase of 5% in the

euro with respect to the USD on December 31, 2022, would have led to no change in the currency derivatives (2021: +€5.1 million). A decrease of 5% in the euro on December 31, 2022, would have led to no reduction in the value of the currency derivatives (2021: –€8.6 million). An increase of 5% in the euro with respect to the AUD on December 31, 2022, would have led to no change in the currency derivatives (2021: +€2.3 million). A decrease of 5% in the euro on December 31, 2022, would have led to no change (2021: –€2.9 million).

As of December 31, 2022, there were no currency hedgings that were shown in hedge accounting as in the previous year.

Pursuant to IFRS, currency risks affect monetary financial instruments that are denominated in a foreign currency (i. e., in a currency other than the functional currency). This means that the foreign currency is the relevant risk variable. Translation-related risks are not taken into account. Because the individual group companies mainly conduct their operative business in their own functional currency, we rate the risk from exchange rate fluctuations resulting from our ongoing business activity as insignificant.

CREDIT RISK

For all deliveries to customers, collateral is requested depending on the volume of the respective transaction and the specific customer and country risk. Data from the customer's previous business relationship, including payment practices and additional credit reports, are also used to avoid non-payment. In addition, the group performs a customer credit check, which is based on certain financial key ratios. By setting a credit limit in a timely manner or suspending orders, the group avoids being exposed to a significant risk of non-payment. If possible, the default risk is also limited by commercial credit insurance. The maximum non-payment risk is limited to the book value disclosed in Section 14. Trade receivables and other receivables. There are no major concentrations of non-payment risks within the group.

With respect to all of the group's other financial assets, such as cash and cash equivalents, available-for-sale financial investments and derivative financial instruments, the maximum credit risk, should the counterparty fail to pay, corresponds to the book value of these instruments. This counterparty default risk is analyzed on a continuous basis and managed by means of corresponding business allocation – also considering potential opportunities – with regard to cluster risks and credit risks.

LIQUIDITY RISK

One element of liquidity protection is the credit line of €100 million agreed upon with three domestic banks in 2016. The term of this credit line was successfully extended in 2021. At the end of 2022, the credit line was only utilized in the form of guarantee credits.

The company uses financial planning tools for early detection of future liquidity requirements. According to current planning, it can be assumed that the financial requirements will be covered in a reliably predictable time frame. Insurance contracts are concluded to hedge against the financial consequences of possible liability risks and damage claims, insofar as this is reasonable and possible. The cover provided by such contracts is reviewed and adapted regularly.

CAPITAL MANAGEMENT

The strategic objective of capital management within the SMA group is to ensure financial flexibility and independence to make rapid use of the opportunities in a photovoltaic market characterized by strong growth. Profitable employment of the capital is measured through regular monitoring of net working capital. Within the SMA group, net working capital is defined as the sum of inventories and trade receivables less trade payables. To be able to usefully measure relative capital consumption even in the event of strong corporate growth, net working capital is expressed in relation to sales. Through debtor management, which ensures that receivables are collected in good time, and linking inventories to sales as well as a constant dividend policy, the company positions itself to achieve its objectives of financial flexibility and independence. In accordance with our intragroup guidelines, the net working capital ratio determined in this way has to be below 25%.

In the reporting year, the equity ratio of the SMA group was 41.8% (2021: 38.7%) and the net working capital ratio was 22.4% (2021: 26.2%).

For information on market risks, please refer to the "Risks and opportunities" section in the Combined Management Report.

31. Auditor's fees

The fees paid to the auditor and recorded as an expense in the year under review break down as follows:

in €'000	2022	2021
Financial statement auditing	787	680
Other audit-related services	86	68
Other services	0	50
	873	798

The auditing services listed in the table above include the expenses of BDO AG Wirtschaftsprüfungsgesellschaft, Frankfurt, Germany, for the audit of the Consolidated Financial Statements, the review of the Half-Year Consolidated Financial Statements and the audit of the Annual Financial Statement as well as of SMA Solar Technology AG and its domestic subsidiaries, insofar as these are subject to mandatory audits pursuant to Section 316 of the German Commercial Code. Other audit-related services included the review and confirmation of the non-financial statement. Other audit-related services included the review and confirmation of the non-financial statement. The previous year's figures related to the expenses of Deloitte GmbH, Hanover, Germany.

32. Declaration on the German Corporate Governance Code in accordance with Section 161 AktG

The declaration required under Section 161 AktG on the recommendations issued by the Government Commission German Corporate Governance Code was given by the Managing Board and the Supervisory Board on December 8, 2022, and made permanently available to shareholders on the [corporate website](#).

33. Consolidated Financial Statements

As the supreme parent company, SMA Solar Technology AG prepared the Consolidated Financial Statements as of December 31, 2022, which are filed with the operator of the Electronic Federal Gazette and subsequently published in the Electronic Federal Gazette.

The date of approval of the prepared Consolidated Financial Statements and the Combined Management Report by the Supervisory Board and the associated adoption of the company's Annual Financial Statement in accordance with Section 172 of the German Stock Corporation Act can be found in the Supervisory Board's report.

Niestetal, March, 9, 2023

SMA Solar Technology AG
The Managing Board

Dr.-Ing. Jürgen Reinert Barbara Gregor

RESPONSIBILITY STATEMENT

We assure to the best of our knowledge that, in accordance with the applicable accounting standards, the Annual Financial Statements give a fair view of the net assets, financial position and results of operations of the company and that the Combined Management Report gives a fair view of the course of business including the results of operations and the group's position and describes the fundamental opportunities and risks of the probable development of the company.

Niestetal, March 9, 2023

SMA Solar Technology AG
The Managing Board

Dr.-Ing. Jürgen Reinert Barbara Gregor

INDEPENDENT AUDITOR'S REPORT

To SMA Solar Technology AG, Niestetal

NOTE ABOUT THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND COMBINED MANAGEMENT REPORT

Audit opinion

We audited the Consolidated Financial Statements of SMA Solar Technology AG, Niestetal, Germany, and its subsidiaries (the group) – which consisted of the SMA group consolidated balance sheet as of December 31, 2022, the SMA group consolidated income statement, the SMA group consolidated statement of cash flows and the SMA group consolidated statement of changes in equity for the fiscal year from January 1, 2022, to December 31, 2022, as well as the Notes to the Consolidated Financial Statements, including a summary of the relevant accounting methods.

In addition, we audited the Combined Management Report (report on the company's and group's position) of SMA Solar Technology AG for the fiscal year from January 1, 2022, to December 31, 2022. The contents of the sections of the Combined Management Report mentioned under "Other information" have not been audited in accordance with German law.

In our opinion, based on the findings of the audit:

→ The Consolidated Financial Statements attached comply with the IFRS as adopted by the EU in all material respects and the additional requirements of the German statutory provisions pursuant to Section 315e (1) of the HGB, and give a true and fair picture of the assets and financial position of the group as of December 31, 2022, and its results of operations for the fiscal year from January 1, 2022, to December 31, 2022, in accordance with these requirements.

→ On the whole, the Combined Management Report attached provides a suitable illustration of the group's position. In all material respects, this Combined Management Report is consistent with the Consolidated Financial Statements, complies with German statutory provisions and suitably presents the opportunities and risks of future developments. Our audit opinion on the Combined Management Report does not include the contents of the sections of the Combined Management Report mentioned under "Other information."

In accordance with Section 322 (3) Sentence 1 of the HGB, we declare that our audit did not raise any objections against the correctness of the Consolidated Financial Statements and the Combined Management Report.

Basis for the audit opinion

We performed our audit of the Consolidated Financial Statements and the Combined Management Report in accordance with Section 317 of the HGB and the EU regulation on statutory audits of public interest entities (no. 537/2014) in consideration of the generally accepted standards for financial audits in Germany as defined by the Institute of Public Auditors (IDW). Our responsibility under these provisions and standards is described in more detail in the "RESPONSIBILITY OF THE AUDITOR TO CHECK THE CONSOLIDATED FINANCIAL STATEMENTS AND THE COMBINED MANAGEMENT REPORT" section of our auditor's report. We are independent of the group companies in compliance with EU law provisions, German commercial law and the German rules of professional conduct, and we have fulfilled our professional obligations applicable in Germany in accordance with these requirements.

Furthermore, in accordance with Article 10, Paragraph 2 f) of the EU regulation on statutory audits of public interest entities, we declare that we did not render any prohibited non-audit services as per Article 5, Paragraph 1 of the EU regulation on statutory audits of public interest entities.

We believe that the audit evidence we have obtained is sufficient and suitable to provide a basis for our audit opinion on the Consolidated Financial Statements and the Combined Management Report.

Key audit matters in the Consolidated Financial Statements audit

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the Consolidated Financial Statements for the financial year from January 1, 2022, to December 31, 2022. These matters were considered as a whole in conjunction with our audit of the Consolidated Financial Statements and also taken into account when we formed our audit opinion. We do not provide a separate audit opinion on these matters.

We identified the following key matters as the most important key audit matters to be outlined in our auditor's report:

1. Realization of revenue on an accrual basis
2. Subsequent valuation of inventories
3. Evaluation of the warranty provision
4. Recoverability of deferred tax assets

1. REALIZATION OF REVENUE ON AN ACCRUAL BASIS

Business matter

Total sales of €1,065.9 million are recognized in the accounts (previous year's adjusted figure: €983.4 million).

For these items, which represent significant amounts, there is a risk that, close to the balance sheet date, this revenue might not be realized in the correct fiscal year. This risk arises close to the balance sheet date due to the complexity of ensuring the realization of revenue on an accrual basis for a large number of sales transactions throughout the group within the meaning of a transfer of control as defined in IFRS 15, even in cases where the transfer of control over the goods to the customer is delayed due to terms of delivery such as DDP, DAP and DDU ("Group D Incoterms") because, in contrast to the standard process, the transfer of risk does not occur until the goods enter the country of destination or are loaded onto a ship.

This is why we identified the realization of revenue on an accrual basis for corporate transactions close to the balance sheet date, especially in conjunction with deliveries made under the contractual agreement of group D Incoterms, as an especially important key audit matter.

Information from the legal representatives on sales can be found in section (2.3) "Disclosures to the accounting and valuation policies" and in section (3) "Segment reporting" of the Notes and in the "Results of operation" section of the Combined Financial Statements.

Audit response

As part of a risk assessment, we first gained an understanding of the different sales transactions and assessed whether the company's guidance regarding the realization of revenue for the different types of sales transactions is consistent with IFRS 15.

Furthermore, we identified sales-related controls in the sales process and assessed their appropriateness and implementation. We then performed functional tests to examine the effectiveness of the implemented controls. We also checked for the existence and amount of the recognized sales over the course of the year by means of sampling. To this end, we compared the postings in the sales accounts against the underlying customer contracts as well as the outgoing invoices and proof of delivery from third parties and satisfied ourselves that the evidence showed that the sales were posted to the accounts in the correct amount and in the correct period.

Finally, we identified sales transactions close to the balance sheet date and with risky group D Incoterms. We conducted a range of checks on a sample basis to confirm that the sales were posted to the accounts in the correct amount and in the correct period on the basis of customer contracts and by comparing the outgoing invoices against the proof of delivery from third parties.

2. SUBSEQUENT MEASUREMENT OF INVENTORY

Business matter

Inventories totaling €308.7 million (about 27.8% of the total assets; previous year: €273.0 million) are stated in the accounts. This figure includes value adjustments of €27.3 million (previous year: €35.4 million).

The process of determining value adjustments is discretionary and highly complex due to the large number of materials in the inventory. Recoverability assessment is based on a series of estimates made by the legal representatives: estimates regarding the turnover of the inventories as well as for excess inventories of non-product-specific materials and for discontinued products;

whether these products are likely to still be used in the sales process or are otherwise usable in the service business. SMA Solar Technology AG uses a time horizon of 36 months to estimate the turnover. In the case of inventory assets that are included in a discontinued product and for which no potential use in the service business is seen, a value adjustment is carried out for their full value.

Given the risk to the Consolidated Financial Statements resulting from the discretionary and complex process of determining value adjustments on inventories and the high amount of the balance sheet item, we consider this to be an especially important key audit matter.

Information from SMA Solar Technology AG's legal representatives on the inventory value adjustments can be found in section (2.3) "Disclosures to the accounting and valuation policies," section (2.4) "Significant judgements and assumptions" and section (13) "Inventories" of the Notes.

Audit response

As part of our audit of the valuation of the inventories, we examined both the system-based and manual procedure for determining value adjustments and performed a structural and functional audit of value-adjustment-related controls.

We also satisfied ourselves of the appropriateness and correct application by the system of the group-specific devaluation regulations according to turnover for raw materials, consumables and supplies as well as unfinished and finished goods.

Also in the case of materials that have been discontinued or are part of a discontinued product as well as for excess inventories, we verified – on the basis of a careful, risk-oriented selection – the assessment of the legal representatives regarding whether these inventories can still be used in the production process or are otherwise usable in the service business. In addition, we assessed both the process of determining the devaluation amount/reversal of impairment losses based on this estimate and their proper posting. Finally, on the basis of a representative sample, we satisfied ourselves that the unfinished goods and unfinished services and the finished goods were measured at the lower value of cost of acquisition or sales and net realizable value.

3. EVALUATION OF THE WARRANTY PROVISION

Business matter

In the Consolidated Financial Statements under the balance sheet item "Provisions," provisions for statutory warranties totaling €119.2 million (about 10.7% of the total assets; previous year: €145.5 million) are stated in the accounts.

To evaluate the provision for warranty risks, a discretionary best estimate of the expected warranty expenses is required. Furthermore, the large number of product groups to be considered makes this especially complex. At the level of product groups, a forecast of the number of expected warranty cases is made on the basis of historical values in previous fiscal years and the expected warranty expenses are allocated to these cases by amount. The settlement amount calculated in this way is then discounted to the balance sheet date.

Given the risk to the Consolidated Financial Statements arising from the complex and discretionary evaluation of the warranty provision and the high amount of the balance sheet item, we consider this to be an especially important key audit matter.

Information from SMA Solar Technology AG's legal representatives on the warranty provisions can be found in section (2.3) "Disclosures to the accounting and valuation policies," section (2.4) "Significant judgements and assumptions" and section (19) "Provisions" of the Notes.

Audit response

As part of our audit of the evaluation of the provision for warranty risks, we examined the procedure for determining the warranty provisions and verified whether this procedure complies with the requirements of IAS 37.

To make a careful, risk-oriented selection, we first checked that the past events of damage under warranty were properly determined and then verified the chosen forecasting method and the resulting derivation of the expected trend in the occurrence of errors. In doing so, we satisfied ourselves that the respective error patterns were allocated correctly to the relevant product groups. To assess the reliability of the estimates for error pattern frequency, we compared the historical forecasts with the actual events of damage in the past. To verify the calculated number of expected warranty cases, we also ensured that the sales volumes used in the calculation were complete and correct.

We then checked that the expected costs for remediation of the expected damage for each product group were correctly derived from cost accounting. In particular, we verified that the direct costs were properly recorded and the indirect costs properly taken into account.

Finally, we satisfied ourselves of the appropriate discounting and of the correct entry into accounts of the provision for warranty risks in the Consolidated Financial Statements.

4. RECOVERABILITY OF DEFERRED TAX ASSETS

Business matter

In the Consolidated Financial Statements, deferred tax assets for loss carryforwards amounting to €64.7 million are stated in the accounts as of December 31, 2022. Of this amount, €40.9 million was newly recognized in the current fiscal year. This resulted in a positive income tax figure of €21.0 million (= 37.5% of net income).

For the recording of deferred tax assets, it is necessary to estimate the extent to which the existing deferred tax assets can be utilized in the subsequent reporting periods. The realization of these assets requires that sufficient taxable income be generated in the future. If there are doubts about the future usability of the calculated deferred tax assets, deferred tax assets must not be recorded and/or deferred tax assets already recognized must be derecognized. The measurement of deferred tax assets depends to a large extent on the assessments and assumptions of the legal representatives regarding the operating performance of the segments and the group's tax management and thus involves a great deal of uncertainty.

Given the risk to the Consolidated Financial Statements due to the discretionary assessment of the legal representatives regarding the recoverability of the deferred tax assets and the high amount of the balance sheet item, we consider this to be an especially important key audit matter.

Information from SMA Solar Technology AG's legal representatives on the recoverability of deferred tax assets can be found in section (2.3) "Disclosures to the accounting and valuation policies," section (2.4.) "Significant judgements and assumptions" and section (7) "Income tax" of the Notes.

Audit response

To check the recoverability of deferred tax assets, we – together with our valuation and tax specialists – had the legal representatives present and explain the corporate planning and resulting tax management. On this basis, we determined the extent to which it is planned and possible over the next three years to offset taxable income with tax loss carryforwards.

Furthermore, with regard to the underlying three-year detailed plan, we gained an understanding of the planning process and assessed its appropriateness. We verified the plan elaborated by the legal representatives and approved by the Supervisory Board as well as the key, underlying planning assumptions and evaluated the appropriateness of the key assumptions, among other things, by means of sensitivity analyses taking into account general and industry-specific market expectations.

With the assistance of our tax specialists, we then reviewed the planning of future taxable income to determine in particular whether the results of the approved three-year plan were appropriately incorporated into tax management.

In addition, our tax specialists reconciled the tax loss carryforwards to the tax assessments of previous fiscal years in the main jurisdictions and their forward projection with the tax calculations for the current fiscal year. We also assessed whether tax-related adjustments to income were properly calculated. Finally, we satisfied ourselves that the applicable tax rates were taken into account. In a final step, we performed an overall assessment of the sustainability of taxable income on the basis of the verifiable three-year plan and the proper derivation of tax-related earnings planning.

Other information

The legal representatives and the Supervisory Board are responsible for other information. The other information contains:

- The combined non-financial statement contained in the "Combined non-financial statement" section of the Combined Management Report
- The (consolidated) corporate governance statement contained in the "Corporate Governance Report" section of the Combined Management Report
- Information contained in the Combined Management Report that is not part of the management report and is marked as unaudited
- The other sections of the Annual Report, with the exception of the audited Consolidated Financial Statements and Combined Management Report as well as our auditor's report

Our audit opinions on the Consolidated Financial Statements and the Combined Management Report do not extend to the other information and, accordingly, we do not provide an audit opinion or any other kind of audit conclusion on them.

In connection with our audit of the Consolidated Financial Statements, we have a responsibility to read the other information and, in doing so, to assess whether the other information

- demonstrates any significant inconsistencies with the Consolidated Financial Statements, Combined Management Report or the knowledge that we have acquired from the audit, or
- otherwise appears incorrect.

If we conclude on the basis of our work that there has been a material misstatement of such other information, we are obligated to report this. We have nothing to report in this regard.

Responsibility of the legal representatives and the Supervisory Board for the Consolidated Financial Statements and the Combined Management Report

The legal representatives are responsible for the preparation of the Consolidated Financial Statements, which comply with the IFRS as applicable in the EU and the additional statutory regulations applicable in Germany as per Section 315e (1) of the HGB in all material respects, and for ensuring that the Consolidated Financial Statements give a true and fair picture of the net assets, financial position and results of operations of the group in compliance with these requirements. Furthermore, the legal representatives are responsible for the internal controls they have deemed necessary to enable preparation of Consolidated Financial Statements that are free of material misstatements due to fraudulent behavior (i. e., accounting manipulation or misappropriation of assets) or error.

When preparing the Consolidated Financial Statements, the legal representatives are responsible for assessing the group's ability to continue with its business activity. In addition, they are in charge of disclosing any matters related to the continuation of the business activity, where relevant. Furthermore, they are responsible for reporting on the continuation of the business activity based on the accounting policy unless there is an intention to liquidate the group or cease business operations, or if there is no realistic alternative.

The legal representatives are also responsible for preparing the Combined Management Report, which provides an accurate view of the group's position overall, is consistent with the Consolidated Financial Statements in all material respects, complies with German law and suitably presents the risks and opportunities of future development. Moreover, the legal representatives are responsible for the precautions and measures (systems) that they considered necessary to enable the preparation of a Combined Management Report in compliance with the applicable legal regulations in Germany and the provision of suitable evidence for statements made in the Combined Management Report.

The Supervisory Board is responsible for monitoring the accounting process of the group for preparing the Consolidated Financial Statements and the Combined Management Report.

Responsibility of the auditor to check the Consolidated Financial Statements and the Combined Management Report

Our aim is to obtain reasonable assurance about whether the Consolidated Financial Statements as a whole are free of material misstatements due to fraudulent behavior or error as well as whether the Combined Management Report provides an accurate view of the group's overall position, is consistent with the Consolidated Financial Statements and any knowledge gained from the audit in all material respects, complies with German law, suitably presents the risks and opportunities of future development, and to provide an auditor's report containing our audit opinions on the Consolidated Financial Statements and the Combined Management Report.

Reasonable assurance is a high degree of certainty but no guarantee that an audit performed in compliance with Section 317 of the HGB and the EU regulation on statutory audits of public interest entities in consideration of the generally accepted standards for financial audits in Germany as defined by the Institute of Public Auditors (IDW) will always reveal a material misstatement. Misstatements may result from fraudulent behavior or error and are considered material if it could be reasonably expected for them to influence the economic decisions made by the addressees, whether individually or as a whole, based on these Consolidated Financial Statements and Combined Management Report.

During the audit, we exercise professional judgement and maintain a critical stance. Furthermore

- We identify and assess the risks of material misstatements due to fraudulent behavior or error in the Consolidated Financial Statements and the Combined Management Report, plan and implement audit procedures as a response to these risks and gather audit evidence that is sufficient and appropriate to serve as the basis for our audit opinions. The risk that material misstatements resulting from fraudulent activities will not be detected is higher than the risk that material misstatements resulting from errors will not be detected because fraudulent activities may involve collusion, forgery, intentional omissions, misleading representations or the overriding of internal controls.
- We gain an understanding of the internal control system relevant to the audit of the Consolidated Financial Statements and of the precautions and measures relevant to the audit of the Combined Management Report in order to plan audit activities that are appropriate for the given circumstances. However, we do not aim to provide an audit opinion on the effectiveness of these systems.
- We assess the appropriateness of the accounting methods applied by the legal representatives as well as the tenability of the values estimated by the legal representatives and the related information.
- We draw conclusions about the appropriateness of the accounting policy for the continuation of business activity used by the legal representatives and, based on the audit evidence acquired, whether a material uncertainty exists in connection with occurrences or circumstances, which may raise significant doubts about the ability of the group to continue with its business activity. If we reach the conclusion that a material uncertainty exists, we are obliged to draw attention to the relevant information in the Consolidated Financial Statements and the Combined Management Report in the auditor's report or, if these statements are inadequate, modify our respective audit opinion. We draw our conclusions based on the audit evidence obtained up to the date of our auditor's report. However, future occurrences or circumstances can result in the group no longer being able to continue with its business activity.
- We assess the overview, structure and content of the Consolidated Financial Statements, including the information provided, and check whether the Consolidated Financial Statements present the underlying business transactions and occurrences in such a way that the Consolidated Financial Statements give a true and fair picture of the net assets, financial position and results of operations of the group in accordance with the IFRS as applicable in the EU and the additional statutory regulations applicable in Germany as per Section 315e (1) of the HGB.
- We obtain sufficient and appropriate audit evidence for the accounting information of the companies or business activities within the group in order to provide audit opinions on the Consolidated Financial Statements and the Combined Management Report. We are responsible for guiding, supervising and implementing the audit of the Consolidated Financial Statements. We bear sole responsibility for our audit opinions.
- We assess the correlation of the Combined Management Report with the Consolidated Financial Statements, its compliance with the law and the view of the group's position conveyed by it.
- We subject the forward-looking statements presented by the legal representatives in the Combined Management Report to audit procedures. In particular, we use sufficient and suitable audit evidence to trace the significant assumptions on which the forward-looking statements are based and assess the proper deduction of the forward-looking statements stemming from these assumptions. We do not provide a separate audit opinion on the forward-looking statements or the underlying

assumptions. There is a significant unavoidable risk that future occurrences may differ significantly from the forward-looking statements.

Among other things, we discuss the planned scope and timing of the audit with those responsible for overseeing it as well as significant audit findings, including any relevant deficiencies in the internal control system that we identify during our audit.

We provide those responsible for overseeing the audit with a declaration that we have met the relevant independence requirements and discuss with them all the relationships and other circumstances that could reasonably be expected to affect our independence and, where relevant, the actions or precautions taken to address any such risks to our independence. From the matters we discussed with those responsible for overseeing the audit, we determine those that were most significant to the audit of the Consolidated Financial Statements for the current reporting period and are therefore the key audit matters. We describe these key audit matters in the auditor's report unless the public disclosure of a key matter is ruled out by law or other statutory provisions.

OTHER LEGAL AND STATUTORY REQUIREMENTS

Note about the audit of the electronic reproductions of the Consolidated Financial Statements and of the Combined Management Report in accordance with Section 317 (3a) HGB that were prepared for purposes of disclosure

Audit opinion

We have carried out an audit in accordance with Section 317 (3a) HGB with reasonable assurance as to whether the reproductions of the Consolidated Financial Statements and of the Combined Management Report (hereinafter also referred to as "ESEF documents") contained in the "SMA-2022-12-31-de.zip" file and prepared for purposes of disclosure comply with the regulations of Section 328 (1) HGB for the electronic reporting format ("ESEF format") in all material respects. In accordance with the German statutory provisions, this audit extends only to the transfer of the

information in the Consolidated Financial Statements and Combined Management Report to the ESEF format and therefore neither to the information contained in these reproductions nor to the information contained in the aforementioned file.

In our opinion, the reproductions of the Consolidated Financial Statements and the Combined Management Report contained in the aforementioned file and prepared for purposes of disclosure comply with the regulations of Section 328 (1) HGB for the electronic reporting format in all material respects. Beyond this audit opinion and our audit opinions contained in the above "Note about the audit of the consolidated financial statements and combined management report" concerning the enclosed Consolidated Financial Statements and the enclosed Combined Management Report for the fiscal year from January 1, 2022, to December 31, 2022, we do not provide any audit opinion whatsoever on the information contained in these reproductions or on the other information contained in the aforementioned file.

Basis for the audit opinion

We carried out our audit of the reproductions of the Consolidated Financial Statements and of the Combined Management Report contained in the aforementioned, provided file in accordance with Section 317 (3a) HGB taking into account the audit standard of the Institute of Public Auditors (IDW) in Germany: "Auditing of electronic reproductions of financial statements and management reports prepared for purposes of disclosure in accordance with Section 317 (3a) HGB (IDW PS 410 (06.2022))." Our responsibility under these requirements is further described in the "Responsibility of the auditor of the Consolidated Financial Statements for the audit of the ESEF documents" section. Our auditing practice applied the requirements of the quality management standards promulgated by the Institute of Public Auditors in Germany (IDW), which implements the IAASB's International Standards on Quality Management.

Responsibility of the legal representatives and the Supervisory Board for the ESEF documents

The company's legal representatives are responsible for preparing the ESEF documents with the electronic reproductions of the Consolidated Financial Statements and of the Combined Management Report in accordance with Section 328 (1) sentence 4 no. 1 HGB and for marking up the Consolidated Financial Statements in accordance with Section 328 (1) sentence 4 no. 2 HGB.

In addition, the company's legal representatives are responsible for such internal controls as they deem necessary to enable the preparation of the ESEF documents that are free from material violations, whether intentional or unintentional, of the requirements for the electronic reporting format stipulated in Section 328 (1) HGB.

The Supervisory Board is responsible for monitoring the preparation process of the ESEF documents as part of the accounting process.

Responsibility of the auditor of the Consolidated Financial Statements for the audit of the ESEF documents

Our aim is to obtain reasonable assurance as to whether the ESEF documents are free from material violations, whether intentional or unintentional, of the requirements stipulated in Section 328 (1) HGB. During the audit, we exercise professional judgement and maintain a critical stance. Furthermore

- We identify and assess the risks of material violations of the requirements stipulated in Section 328 (1) HGB, whether intentional or unintentional, design and carry out audit procedures that respond to those risks and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion.
- We gain an understanding of the internal controls relevant to the audit of the ESEF documents in order to design audit procedures that are appropriate in the circumstances, but not with the aim of expressing an opinion on the effectiveness of such control.
- We assess the technical validity of the ESEF documents, i. e., whether the file containing the ESEF documents meets the requirements relating to the technical specification for this file stipulated in the Delegated Regulation (EU) 2019/815 in the version applicable on the date of the financial statements.
- We assess whether the ESEF documents enable reproduction of the audited Consolidated Financial Statements and audited Combined Management Report with the identical content in XHTML format.
- We assess whether marking up the ESEF documents with Inline XBRL technology (iXBRL) in accordance with Articles 4 and 6 of the Delegated Regulation (EU) 2019/815, as applicable at the balance sheet date, enables an appropriate and complete machine-readable XBRL copy of the XHTML reproduction.

REMAINING INFORMATION IN ACCORDANCE WITH ARTICLE 10 OF THE EU REGULATION ON STATUTORY AUDITS OF PUBLIC INTEREST ENTITIES

We were selected as the auditor at the Annual General Meeting on May 31, 2022. We were commissioned by the Supervisory Board on September 13, 2022. We have worked continuously as a group auditor for SMA Solar Technology AG since fiscal year 2022.

We hereby declare that the audit opinions contained in this auditor's report conform with the additional report submitted to the audit committee in accordance with Article 11 of the EU regulation on statutory audits of public interest entities (auditor's report).

OTHER MATTERS – USE OF THE AUDITOR'S REPORT

Our auditor's report should always be read in conjunction with the audited Consolidated Financial Statements and the audited Combined Management Report and the audited ESEF documents. The Consolidated Financial Statements and Combined Management Report converted to ESEF format – including the versions to be included into the Business Register – are merely electronic reproductions of the audited Consolidated Financial Statements and audited Combined Management Report and do not replace them. In particular, the ESEF note and our audit opinion contained therein can only be used in conjunction with the audited ESEF documentation provided in electronic form.

RESPONSIBLE AUDITOR

The auditor responsible for the audit is Dr. Jan Faßhauer.

Frankfurt am Main, March 9, 2023

BDO AG
Accounting firm

Gebhardt
German Public Auditor

Dr. Faßhauer
German Public Auditor

NOTE ABOUT THE AUDIT OF THE COMBINED NON-FINANCIAL STATEMENT

Limited assurance report of the independent auditor regarding the combined non-financial statement¹

To SMA Solar Technology AG, Niestetal

We have performed a limited assurance engagement on the combined non-financial statement of SMA Solar Technology AG, Niestetal, (hereinafter referred to as SMA Solar or “the company”) included in the “Combined non-financial statement” section of the Combined Management Report for the period from January 1 to December 31, 2022, (hereinafter referred to as “combined non-financial statement”).

Not part of our audit are the external sources of documentation or expert opinions mentioned in the combined non-financial statement or the “Nature conservation and biodiversity,” “Further training” and “New work” sections which are marked as unaudited.

Responsibilities of the executive directors

The executive directors of the company are responsible for the preparation of the combined non-financial statement in accordance with Section 315c in conjunction with 289c to 289e of the German Commercial Code (HGB) and Article 8 of Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (hereafter referred to as “EU Taxonomy Regulation”) and the delegated acts adopted thereon, as well as with their own interpretation of the wording and terminology contained in the EU Taxonomy Regulation and the delegated acts adopted thereon, as is presented in the “EU Taxonomy” section in the combined non-financial statement.

These responsibilities of the company’s executive directors include the selection and application of appropriate methods regarding non-financial reporting and the use of assumptions and estimates for individual non-financial disclosures which are reasonable under the given circumstances. In addition, the executive directors are responsible for internal controls they have determined necessary to enable the preparation of the combined non-financial statement that is free from material misstatement due to fraudulent behavior (manipulation of the non-financial statement) or error.

Some of the wording and terminology contained in the EU Taxonomy Regulation and the delegated acts adopted thereon are still subject to considerable interpretation uncertainty and have not yet been officially clarified. Therefore, the executive directors have laid down their own interpretation of the EU Taxonomy Regulation and of the delegated acts adopted thereon in the “EU taxonomy” section of the combined non-financial statement. They are responsible for the selection and reasonableness of this interpretation. As there is the inherent risk that indefinite legal concepts may allow for various interpretations, evaluating the legal conformity is prone to uncertainty.

¹ We have performed a limited assurance engagement on the German version of the combined non-financial statement and issued an Independent Practitioner’s Report in German language, which is authoritative. The following text is a translation of the original German Independent Practitioner’s Report.

Independence and quality assurance of the accounting firm

We have complied with the German professional regulations on independence and other professional rules of conduct.

Our accounting firm applies the national legal regulations and professional statements – in particular the IDW quality management standards promulgated by the Institute of Public Auditors in Germany (IDW), which implement the IAASB's International Standards on Quality Management – and accordingly maintains a comprehensive quality management system that includes documented regulations and measures relating to compliance with professional conduct requirements, professional standards and authoritative statutory and other legal requirements.

Responsibilities of the auditor

Our responsibility is to express a conclusion opinion on the combined non-financial statement based on our work performed within our limited assurance engagement.

We conducted our work in accordance with the International Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other than Audits or Reviews of Historical Financial Information", adopted by the IAASB. This standard requires that we plan and perform the audit such that we can conclude with limited assurance whether matters have come to our attention that cause us to believe that the company's combined non-financial statement – with the exception of the external documentation sources, expert opinions and unaudited sections as mentioned in the combined non-financial statement – has not been prepared, in all material respects, in accordance with Section 315c in conjunction with 289c to 289e of the German Commercial Code, the EU Taxonomy Regulation and the delegated acts adopted thereon as well as with the interpretation by the executive directors as presented in the "EU taxonomy" section of the combined non-financial statement.

The procedures performed in a limited assurance engagement are less in extent than in a reasonable assurance engagement; consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. The choice of assurance work is subject to the auditor's professional judgment.

Within the scope of our limited assurance engagement, we performed, among others, the following procedures and other work:

- Gaining an understanding of the structure of the sustainability organization, and of the involvement of stakeholders
- Interviewing the executive directors and the employees responsible for the materiality analysis in order to gain an understanding of the procedure for identifying material topics and corresponding reporting boundaries of SMA Solar
- Conducting a risk assessment – including media analysis – of relevant information relating to the sustainability performance of SMA Solar in the reporting period
- Assessing the suitability of the internally developed definitions
- Assessing the design and implementation of systems and processes for identifying, processing and monitoring data concerning environmental, labor and societal aspects as well as data concerning the observance of human rights, anti-corruption and anti-bribery, including the consolidation of this data
- Interviewing group-level employees and executive directors responsible for determining information regarding concepts, due diligence processes, results and risks as well as for performing internal control procedures and consolidating this information
- Reviewing selected internal and external documents
- Conducting an analytical assessment of the data and trends from the quantitative information reported for consolidation at the group level
- Estimating the local data acquisition, validation and reporting processes and the reliability of the reported data
- Comparing the selected information against the corresponding data in the Consolidated Financial Statements and the other sections of the Group Management Report
- Evaluation of the process to identify taxonomy-eligible and taxonomy-aligned economic activities and the corresponding disclosures in the combined non-financial statement
- Assessing the overall presentation of the information

Audit opinion

Based on the audit work performed and the evidence obtained, nothing has come to our attention that causes us to believe that SMA Solar's combined non-financial statement for the period from January 1, to December 31, 2022, has not been prepared, in all material respects, in accordance with Section 315c in conjunction with 289c to 289e of the German Commercial Code, the EU Taxonomy Regulation and the delegated acts adopted thereon as well as with the interpretation by the executive directors as presented in the "EU taxonomy" section of the combined non-financial statement.

We do not express an audit opinion on the external sources of documentation or expert opinions mentioned in the combined non-financial statement or on the "Nature conservation and biodiversity," "Further training" and "New work" sections which are marked as unaudited.

Restriction of use and liability for the report

We would like to point out that the assurance engagement was carried out for the purposes of the company and the report is only intended to inform the company about the findings of the assurance engagement. Consequently, it is not suitable for any purpose other than the above. The note is therefore not intended for third parties to make (financial) decisions based on it. Our responsibility is toward the company only. However, we do not accept or assume liability to third parties. Our conclusion of the assurance engagement is not modified in this respect.

Information on assignment conditions

This assignment is based on the "Special Assignment Terms of Accounting Firm BDO AG" dated March 1, 2021, as agreed upon with the company, and on the "General Assignment Terms for Auditors and Accounting Firms" promulgated by the Institute of Public Auditors in Germany (IDW) dated January 1, 2017, (www.bdo.de/auftragsbedingungen).

Frankfurt am Main, March 9, 2023

BDO AG
Accounting firm

Dr. Jan Faßhauer

Viola Möller

German Public Auditor

REMUNERATION REPORT

The Remuneration Report provides detailed, personalized information about the remuneration granted and owed to the members of the Managing Board and Supervisory Board of SMA Solar Technology AG in the reporting year. In addition, the Remuneration Report summarizes the principles that are decisive when it comes to determining remuneration for the Supervisory Board and the Managing Board and also explains the remuneration structure. The Report meets the requirements of Section 162 of AktG. Further detailed information regarding the remuneration systems for the Managing Board and Supervisory Board members can be found on the company's [website](#).

Remuneration of the members of the Managing Board

A REVIEW OF THE FISCAL YEAR WITH REGARD TO REMUNERATION

In 2021, the Supervisory Board stipulated adjustments to the remuneration system for the Managing Board, which had been in place since 2017, to take effect starting in the 2021 fiscal year. The adjustments made accounted for the new statutory requirements imposed by the Second Shareholder Rights Directive (ARUG II) as well as the new version of the German Corporate Governance Code. The adjusted remuneration system for the Managing Board (hereinafter referred to as the 2021 remuneration system) was put to a vote at the ordinary Annual General Meeting on June 1, 2021, in accordance with Section 120a (1) of AktG and approved by a majority of 84.45%. This applies to the employment contracts concluded in 2022 for Thomas Pixa and Barbara Gregor and will continue to apply to future employment contracts with Managing Board members in the event of both the reappointment of an existing Managing Board member and the appointment of a new member. For the employment contracts concluded before 2021 for Dr.-Ing. Jürgen Reinert and Ulrich Hadding (who left the company in the reporting year), the company shall apply the 2017 remuneration system based on Section 26j (1), sentence 3 of the Introductory Act to the German Stock Corporation Act (EGAktG). This system was approved at the Annual General Meeting on May 23, 2017.

The major differences between the 2017 and 2021 remuneration systems can be summarized as follows:

Differences between the 2017 and 2021 remuneration systems

Subject	Remuneration system 2017	Remuneration system 2021
Variable remuneration: annual bonus	40% EBT target (150% max.) 30% sales target (150% max.) 30% personal targets, e.g., quality, ESG (100% max.) Cap at 100% fulfillment	1st component: 40% EBIT target (150% max.) 2nd component: 30% financial performance target (150% max.) 3rd component: 30% two personal targets (150% max.); of which 50% from financial and 50% from non-financial performance criteria; non-financial criteria from ESG
Variable remuneration: long-term bonus	Average EBIT margin over three fiscal years Overfulfillment not possible (cap at 100%) Paid out after third fiscal year	One to two long-term financial performance targets over four fiscal years (150% max.) Discretionary factor (0.8 to 1.2) for ESG targets Overfulfillment possible up to 180% max. (cap including discretionary factor)
Maximum remuneration	No defined maximum remuneration, but an upper limit of 100% on short-term and long-term variable components, including in the event of overfulfillment of underlying targets	Maximum remuneration defined; implemented via limits on amounts paid out in variable remuneration
Share ownership guideline	Expectation for Managing Board members to invest portions of long-term bonuses in SMA shares	If short- and long-term bonuses > 100%, obligation to invest 40% of amount in SMA shares
Change of control	Entitlement to severance pay if contract is terminated by mutual consent in the event of a change of control	No entitlement to severance pay if contract is terminated in the event of a change of control

In the event of major changes to the remuneration systems, or at least every four years, the applicable remuneration system for the Managing Board of SMA Solar Technology AG will be submitted at the Annual General Meeting for approval.

PRINCIPLES BY WHICH REMUNERATION IS SET

The Supervisory Board as a whole is responsible for deciding the form that the remuneration system for the Managing Board takes and for setting the separate emoluments and other material contract elements. The Presidial Committee assists the Supervisory Board with this and prepares Supervisory Board resolutions. In arranging both the 2017 and 2021 remuneration systems, the Supervisory Board worked on the basis of the following parameters:

- Making the system transparent and easy to understand
- The company's financial situation and long-term sustainable development
- Linking the interests of shareholders in the sustainable development of their stakes in the company to corresponding performance incentives for the members of the Managing Board
- Ensuring that remuneration is competitive on the market for highly skilled executives
- Basing remuneration on the assignments, responsibilities and success of each individual member of the Managing Board
- Linking a significant proportion of overall remuneration to the achievement of ambitious long-term performance targets
- Establishing an appropriate ratio of fixed remuneration to performance-based remuneration
- Maintaining an appropriate level in both horizontal and vertical terms

In setting remuneration, the Supervisory Board diverged from the 2017 remuneration system in the following respects in the reporting year:

The use of the EBIT (rather than EBT) margin as the means of measuring the annual bonus and long-term variable remuneration, in contrast to the approved remuneration system as used in previous years, took place as a result of measurement being adjusted to the standard commonly used at stock corporations.

The change relative to the approved remuneration system to termination by the Managing Board member (rather than "termination by mutual consent") as a prerequisite for entitlement in the event of a change of control occurred because the envisaged mutual consent as a prerequisite for entitlement did not grant the Managing Board the intended freedom of choice in the event of a change of control.

The intended post-contract covenant not to compete for Managing Board members is no longer agreed, as this is suitable only to a limited extent for preventing any transfer of knowledge to a competing company. In view of the expenses on the part of the company associated with the post-contract covenant not to compete, the Supervisory Board therefore decided to discontinue the policy.

LINK BETWEEN REMUNERATION SYSTEM AND CORPORATE STRATEGY

The components of the 2017 and 2021 remuneration systems are essentially fixed remuneration, additional benefits, one-year variable remuneration and long-term variable remuneration. The link between these components and the corporate strategy is as follows:

Together with the other remuneration components, fixed remuneration and additional benefits form the basis for allowing the Managing Board to secure and retain for the long term the highly skilled members required for the development and implementation of the corporate strategy. Both components are intended to be competitive offers on the market for highly skilled Managing Board members.

One-year variable remuneration in line with the 2017 remuneration system is intended to motivate members of the Managing Board to achieve ambitious and challenging financial, operational and strategic objectives during a fiscal year. These objectives are based on the corporate strategy and, in addition to profitability and sales as the material key figures of an efficiently operating company, they incorporate further strategy-based objectives in the form of personal performance targets for the Managing Board members. The 2021 remuneration system follows on from the previous philosophy and sets a stronger incentive for Managing Board members by means of the potential for them to surpass objectives in a way that will then be reflected in their remuneration.

Multiyear variable remuneration under the 2017 remuneration system is indicative of the company's strategic approach of encouraging members of the Managing Board to secure and improve profitability and the value of the company on a long-term basis by setting ambitious objectives linked closely with the multiyear performance of the company's earnings. The evaluation period of three years stipulated for the 2017 remuneration system has helped to ensure that the Managing Board's actions are focused partly on the long-term development of the company. The 2021 remuneration system reinforces the emphasis on the long-term development of the SMA group by extending the evaluation period for multiyear variable remuneration to four years. Furthermore, additional strategic objectives can be incorporated into the performance criteria for the long-term variable portion and more weight can be given to sustainability objectives, in particular, via a discretionary factor.

SETTING OF TARGET REMUNERATION

When setting remuneration in accordance with the 2017 and 2021 remuneration systems, the Supervisory Board considers the general principles outlined in this section in particular, as well as the criteria for appropriate remuneration.

A twelfth of the agreed annual fixed remuneration is paid out each calendar month. If an employment contract begins or ends in the course of a fiscal year, the remuneration for that fiscal year will be paid out on a pro rata basis.

The fixed remuneration, like the other remuneration components, can be adjusted or reset for the duration of a new employment contract as part of the existing remuneration system for the members of the Managing Board. Furthermore, all remuneration components can be reviewed if the duties or responsibilities of a member of the Managing Board should change.

One-year variable remuneration is measured on the basis of two key group figures and one personalized performance factor based on the performance of the member of the Managing Board in question and the achievement of stakeholder objectives. The performance period is the fiscal year as defined by SMA Solar Technology AG.

A personal target amount (target amount) to be paid out upon 100% achievement of objectives is agreed in the employment contract of each member of the Managing Board. With regard to the target amount agreed, the Supervisory Board refers to the general principles outlined in the section "Principles by which remuneration is set." Objectives by which success is measured in line with the 2017 remuneration system include the EBIT (earnings before interest and taxes) margin, the sales of the SMA group and the personal performance targets of the Managing Board members. The Supervisory Board sets the figures for these performance targets for the applicable fiscal year. The 2021 remuneration system opens up the possibility of agreeing other financial performance targets such as ROCE or cash flow instead of the sales target.

In accordance with the 2017 remuneration system, "EBIT margin" counts for 40% and "sales" and "personal performance" count for 30% each of the one-year variable remuneration. The "EBIT margin" and "sales" components can also be fulfilled up to 150%. If the annually defined lower limits of the respective components are not met, they are graded with a "0." If the sum of the percentages of the components reaches 100% or more, this entitles payment of the full agreed target amount. If the agreed targets are exceeded, this does not entitle to payment of an overall variable remuneration above 100%. In deviation from the above sentence, Managing Board members entitled to remuneration under the 2021 remuneration system have the option of receiving up to 150% of the individually agreed target amount if the target is exceeded. Other financial targets can also be agreed upon in addition to the sales performance target.

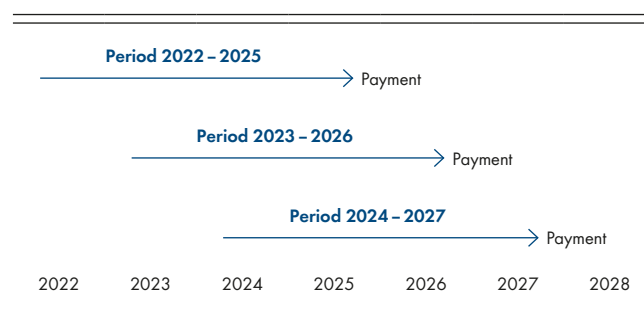
Multiyear variable remuneration in line with the 2017 remuneration system is paid in accordance with the fulfillment of a performance target measured by average profitability over three consecutive fiscal years. The parameter used to measure this is the EBIT margin. A personal target amount to be paid out upon 100% achievement of objectives is agreed in the employment contract of each Managing Board member.

With regard to the target amount agreed, the Supervisory Board also referred to the general principles outlined in the section "Principles by which remuneration is set."

The upper and lower limits of the target value (EBIT margin) are determined annually by the Supervisory Board for a period of three fiscal years. If the upper limit for the target value is reached, the member will be entitled to the full target amount. The Managing Board member is not entitled to the bonus until the lower threshold for the target value is reached. Values in-between are determined on a linear basis. If the target value is exceeded, this does not entitle to payment of a higher long-term bonus (cap). The bonus is payable, at the very earliest, upon expiration of the three-year period. Payment takes place after the third Consolidated Financial Statements have been approved, usually at the end of March, even if the employment contract ends before the end of the performance period.

Under the 2021 remuneration system, the performance target assessment period mentioned above extends to four consecutive fiscal years. Furthermore, other financial ratio-related targets can also be agreed upon in addition to the EBIT margin performance target. For this purpose, two non-financial performance targets (ESG targets) are included in determining the target achievement value via a discretionary factor of 0.8 to 1.2. In addition, exceeding the agreed target values also leads to a higher variable component, which can reach a maximum of 180% of the agreed variable remuneration.

Installments for long-term variable remuneration (2021 remuneration system)¹

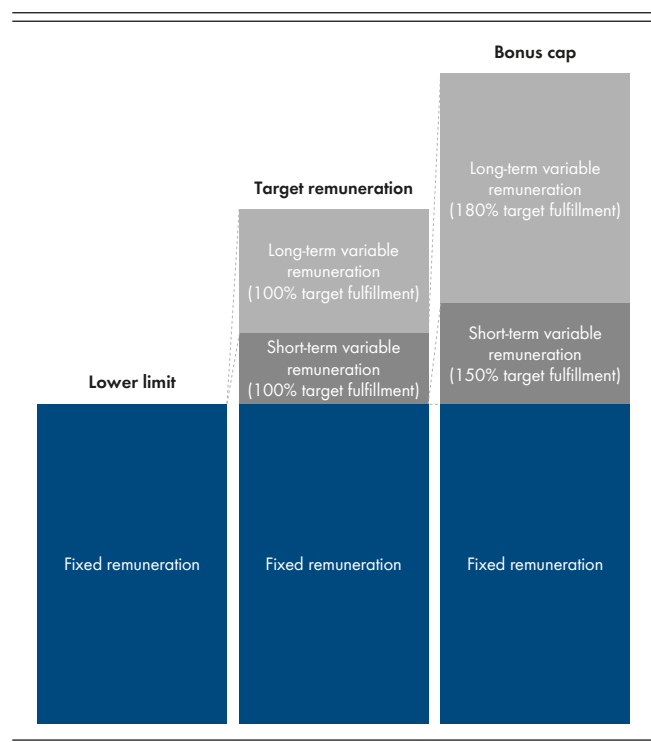


¹ The Supervisory Board set a target value for the average EBIT margin for every period over the four year period.

ADHERENCE TO MAXIMUM REMUNERATION

The 2017 remuneration system does not currently contain any expressly defined maximum remuneration. However, it does stipulate an upper limit of 100% of the agreed remuneration component for the variable portions of Managing Board salaries, and this cannot be exceeded even if the underlying targets are surpassed. Overall, therefore, payments from both one-year variable remuneration and multiyear variable remuneration are limited to 100% of the target amount per performance period.

Distribution of Managing Board remuneration (2021 remuneration system)¹



¹ Schematic representation; in contrast to the 2021 remuneration system, the variable remuneration elements are limited at 100% target achievement in the 2017 remuneration system, with the result that the target remuneration also represents the upper limit of remuneration.

In the 2022 fiscal year, the remuneration paid and owed to the Managing Board members fell short of the maximum possible remuneration, in particular due to the fact that long-term targets were only partially achieved in 2021. The maximum remuneration levels set out in the 2021 remuneration system were complied with in the fiscal year. Please refer to the remuneration tables in the "Managing Board remuneration amounts in the fiscal year" for further details of remuneration paid and owed.

ASSESSMENT OF APPROPRIATENESS

The Supervisory Board used the disclosed remuneration figures of companies listed on the S-DAX for comparison purposes when assessing if the remuneration for Managing Board members was appropriate.

It also included Managing Board remuneration in relation to remuneration of the top-level executives and the workforce as a whole, taking into account changes over time, and thus laid out comparable peer groups from top-level executives (employees at the first and second levels below the Managing Board working in Germany) and the workforce (all employees working in Germany).

APPLICATION OF THE REMUNERATION SYSTEM DURING THE FISCAL YEAR

Due to the varying employment contracts of the Managing Board members, both the 2017 and the 2021 remuneration systems have been applied in the reporting year. In view of the remuneration systems to be applied at the same time, the Supervisory Board also took into account their compatibility under both systems when selecting the performance targets for the reporting year.

Fixed remuneration components

In line with both remuneration systems, a twelfth of the agreed annual fixed remuneration is paid out each calendar month.

All Managing Board members are also entitled to the following additional benefits:

- A company car, including for personal use; or, alternatively, a gross monthly vehicle allowance of €1,150
- Reimbursement of travel costs and any expenses incurred on company business in accordance with the SMA Solar Technology AG travel expenses policy
- Continued payment of remuneration for up to nine months in the event of temporary sick leave
- Payment of the hypothetical employer's contribution up to the contribution assessment ceiling of the statutory social insurance scheme (pension, health, nursing care), even in the case of voluntary insurance and without any proof being furnished
- Appropriate accident insurance

- Appropriate directors and officers liability insurance ("D&O insurance") in case one or more members of the Managing Board should be subject to a claim for financial loss from a third party or the company based on statutory liability provisions under private law on the grounds of a breach of duty committed in the course of business. There is a deductible for D&O insurance of 10% of the damages up to a maximum of one and a half times the fixed annual remuneration
- Criminal defense insurance covering the members of the Managing Board for legal expenses incurred in criminal and administrative proceedings if these relate to action or failure to act associated with their activities on behalf of SMA Solar Technology AG

Barbara Gregor also receives support for the expenses of a second residence at the Kassel site as part of onboarding.

Any taxes due on additional benefits must be borne by the Managing Board member. The members of the Managing Board do not receive any extra payment for a private pension beyond the employer's contribution paid when the contribution assessment ceiling for statutory pension insurance is reached.

Variable remuneration components

The performance criteria for one-year and multiyear variable remuneration in line with both remuneration systems are based on the strategic objectives of the company. The SMA group's EBIT margin and sales serve as material performance criteria for variable remuneration according to the 2017 remuneration system. They are used to measure success as regards increasing profitability and efficiency while making optimized use of capital.

The 2021 remuneration system expands the aforementioned performance criteria to include the option of agreeing other key financial figures as performance criteria in addition to sales, thus aligning the performance incentive even more specifically to the actual business strategy. The agreement of personal performance criteria for Managing Board members takes place in addition to the aforementioned performance criteria. This gives the Supervisory Board the option to promote the sustainability of the SMA group in a more targeted way while taking the interests of shareholders and other stakeholders into account.

One-year variable remuneration

In 2021, on the basis of the 2017 and 2021 remuneration systems, the Supervisory Board stipulated minimum, target and maximum figures for the key financials and, in the case of personal targets, selected issues of "cash flow" and "proportion of women in the workforce as a whole" for variable remuneration for the one-year variable remuneration paid and owed in the reporting year. In doing so, the Supervisory Board ensured that the target values for the performance criteria were ambitious and challenging. The Supervisory Board set the financial targets for the 2021 fiscal year on the basis of the group's medium-term financial planning, meaning without considering any impact of the coronavirus crisis on business at the company – any such impact being impossible to foresee at the time the targets were set. No adjustments were made to the target values.

The target values for one-year variable remuneration and its weighting and the degree of fulfillment achieved for the Managing Board members in 2021, set at the same level, are presented below:

Target values and degree of fulfillment for one-year variable remuneration

Criterion and weighting	0% target	100% target	150% target	Actual figures in 2021	Degree of target fulfillment
Sales (30%)	€899.2 million	€1,087.0 million	€1,195.7 million	€983.4 million	38.0%
EBIT margin (40%)	0%	2.00%	3.00%	-3.40%	0%
Personal target 1: NWC ratio and net cash (13.5%)	→ 25% NWC ratio at end of year → 25% NWC ratio on monthly average → €225 million net cash at end of year	→ 21% NWC ratio at end of year → 23% NWC ratio on monthly average → €250 million net cash at end of year	→ 20% NWC ratio at end of year → 22% NWC ratio on monthly average → €263 million net cash at end of year	→ 26.2% NWC ratio at end of year → 26.7% NWC ratio on monthly average → €221.7 million net cash at end of year	0%
Personal target 2: Quality costs (13.5%)	€109 million total quality costs	€97 million total quality costs	€90 million total quality costs	€102.5 million total quality costs	54%
Personal target 3: Sustainability (3%)	Consistent nonachievement of defined KPI targets	Consistent achievement of defined KPI targets	Consistent overfulfillment of defined KPI targets	Not achieved: three targets Achieved: one target Exceeded: three targets	79%

Long-term variable remuneration

The target values actually achieved as a parameter for measuring long-term remuneration is calculated on the basis of the results actually achieved in the fiscal years covered by the respective period. The degree of target fulfillment thus cannot be calculated,

nor can any long-term remuneration be paid, until the respective period has finished. Any advance payments are not possible.

During the reporting year, the Supervisory Board regularly assessed the degree of target fulfillment of the common target value set for the Managing Board members for long-term Managing Board remuneration relating to the period from 2019 to 2021 as follows:

Target value and degree of fulfillment for multi-year variable remuneration

Criterion and weighting	0%	100%	Cap	Actual figure 2019-2021	Degree of target fulfillment
Average EBIT margin 2019 - 2021 (100%)	0% EBIT margin	3% EBIT margin	3% EBIT margin	-0.65%	0%

Share Ownership Guidelines

If the employment contract still has a term of at least two years to run when payment of remuneration in line with the 2017 remuneration system becomes due, then the Managing Board members are expected to invest the net amount payable, in part, in shares in SMA Solar Technology AG and hold these shares until their Managing Board duties with the company have ended. Under the 2021 remuneration system, the Managing Board is required to invest 40% of the gross amount of the variable remuneration in company shares, insofar as this is based on a target achievement of more than 100%.

According to a disclosure made by the members of the Managing Board, they held, either directly or indirectly, a total stake of 0.03% in all shares issued as of the end of the fiscal year. The Managing Board members neither acquired nor sold shares in the company during the fiscal year.

Retention/clawback

The 2017 remuneration system does not allow for any further retention or clawback rights beyond the options provided for in law for compensating for misconduct on the part of the Managing Board. The Supervisory Board has not made use of the option to claw back or retain variable remuneration components from Managing Board members either partially or in full in the 2021 remuneration system either.

Benefits in the event of termination of Managing Board duties

In the event of early termination of Managing Board duties without good cause, the compensation payable is limited to the total remuneration for the remaining term of the contract and up to a maximum of two years' emoluments (severance pay cap). If an employment contract with a member of the Managing Board ends after being terminated by the member within a period of six months from a change of control, this member is also entitled to severance pay amounting to his/her remuneration rights for the remaining term of the employment contract, however, no longer than a period of two years. SMA Solar Technology AG will not grant any benefits in the event of regular termination of Managing Board duties.

Benefits from third parties

Managing Board members receive no separate remuneration for carrying out work at subsidiaries relating to their Managing Board activities at SMA Solar Technology AG.

MANAGING BOARD REMUNERATION AMOUNTS IN THE FISCAL YEAR

Remuneration paid and owed

The following tables itemize the remuneration paid and owed to each member of the Managing Board in the 2022 fiscal year. The payments specified for the reporting year encompass the fixed remuneration components actually paid out in the reporting year plus the variable remuneration due and paid out in the fiscal year. According to Section 162 of AktG, remuneration paid and owed refers to the amounts that were due in the reporting period and have already been paid to the specific Managing Board member or are due and have yet to be paid.

The figures for each payment are divided into fixed and variable remuneration components. The fixed remuneration components include the nonperformance-based basic salaries and additional benefits.

The variable performance-based remuneration components are divided into one-year and multiyear variable remuneration.

Managing Board remuneration paid and owed

	Dr.-Ing. Jürgen Reinert Chief Executive Officer, Board Member for Strategy, Sales and Service, Operations and Technology Joined 2014/04/01				Barbara Gregor Board Member for Finance and Legal Joined 2022/12/01			
	2022	2022 ¹	2021	2021 ¹	2022	2022 ¹	2021	2021 ¹
	in €'000		in €'000		in €'000		in €'000	
Fixed remuneration	949	91%	949	72%	54	93%	0	0%
Additional benefits/Others	21	2%	21	2%	4	7%	0	0%
Total	970	93%	970	74%	58	100%	0	0%
One-year variable remuneration 2022 (2021) ²	73	7%	348	26%	0	0%	0	0%
Multiyear variable remuneration		0%		0%				
Three-year variable remuneration 2018 – 2020			0	0%				
Three-year variable remuneration 2019 – 2021	0	0%	0	0%	0	0%	0	0%
Total	73	7%	348	26%	0	0%	0	0%
Pension contribution	0	0%	0	0%	0	0%	0	0%
Total	1,043	100%	1,318	100%	58	100%	0	0%

	Thomas Pixa Board Member for Finance and Legal Joined 2022/06/01, left 2022/11/30				Ulrich Hadding Board Member for Finance, HR and Legal Joined 2017/01/01, left 2022/05/31			
	2022	2022 ¹	2021	2021 ¹	2022	2022 ¹	2021	2021 ¹
	in €'000		in €'000		in €'000		in €'000	
Fixed remuneration	304	96%	0	0%	285	34%	683	71%
Additional benefits/Others	14	4%	0	0%	13	2%	29	3%
Total	318	100%	0	0%	298	36%	712	74%
One-year variable remuneration 2022 (2021) ²	0	0%	0	0%	521	64%	250	26%
Multiyear variable remuneration		0%		0%				
Three-year variable remuneration 2018 – 2020			0	0%				
Three-year variable remuneration 2019 – 2021	0	0%	0	0%	0	0%	0	0%
Total	0	0%	0	0%	521	64%	250	26%
Pension contribution	0	0%	0	0%	0	0%	0	0%
Total	318	100%	0	0%	819	100%	962	100%

¹ The relative portions given here refer to the remuneration components "paid and owed" in the respective fiscal year in accordance with Section 162 (1), sentence 1 of AktG. They thus include all benefits actually allocated in the fiscal year in question, irrespective of the fiscal year for which they were allocated to the members of the Managing Board. Consequently, the relative portions given here are not comparable with the relative portions in the description of the remuneration system according to Section 87a (1), no. 3 of AktG submitted to the Annual General Meeting with this remuneration report. The portions specified in the remuneration system refer to the applicable target values.

² The disclosures on the one-year variable remuneration for Ulrich Hadding include a severance payment and a one-time remuneration payment for outstanding claims under the employment contract totaling €468,000.

Comparison of remuneration and earnings performance

The comparison of the changes in Managing Board remuneration, the company's earnings and the average remuneration of the workforce presented in the table below in accordance with Section 162 (1), sentence 2, no. 2 of AktG shows a consistent

one-year correlation, as the comparison with average workforce remuneration over the past five years required by law in accordance with Section 26j (2), sentence 2 of the introductory legislation to the Stock Corporation Act does not need to be extended to the years prior to introduction of Section 162 (1), sentence 2, no. 2 of AktG.

The comparison with the progression in average employee remuneration is based on the average remuneration of the workforce of SMA AG. Because remuneration varies, particularly at the subsidiary companies outside Germany, the comparison with the progression in average remuneration only refers to the workforce of SMA AG. This reference group was also used in the appropriateness assessment on the remuneration of the members of the Managing Board. This took into account the remuneration of all employees, including executive staff, as defined in Section 5 (3) of the German Works Constitution Act (BetrVG). Any remuneration additionally received by employees as members of the Supervisory Board of SMA AG was disregarded. For ease of comparison, the remuneration of part-time staff was adjusted to full-time equivalent level.

Comparison of annual changes in Managing Board remuneration in accordance with Section 162 (1) no. 2 of AktG

Annual change	2022 vs. 2021	2021 vs. 2020
Managing Board remuneration and emoluments¹		
Dr. Jürgen Reinert	-21%	4%
Barbara Gregor ²		
Thomas Pixa ²		
Ulrich Hadding ³	-17%	2%
Earnings performance		
SMA Solar Technology AG ⁴	249.4%	-85.7%
SMA group ⁵	728.1%	-88.2%
Average remuneration of employees on full-time equivalent basis		
Employees of the company	3%	8%

¹ Remuneration paid and owed in accordance with Section 162 (1), sentence 1 of AktG. Fixed remuneration including additional benefits and one-year and multiyear variable remuneration.

² Joined in 2022

³ Left on May 31, 2022

⁴ Annual earnings as referred to in Section 275 (2), no. 17 of HGB.

⁵ EBITDA of the SMA group; The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2)

Remuneration of the members of the Supervisory Board

The remuneration system for the Supervisory Board detailed in the Articles of Incorporation of SMA Solar Technology AG and approved for the first time by the Annual General Meeting on May 23, 2013, was approved unchanged by the Annual General Meeting on June 1, 2021, with a majority of 99.99%.

STRUCTURE OF SUPERVISORY BOARD REMUNERATION

In accordance with the remuneration policy, the members of the Supervisory Board have received exclusively fixed remuneration since the 2013 fiscal year. The ordinary members of the Supervisory Board receive remuneration of €25,000 for each fiscal year in accordance with Section 11 (1) of the Articles of Incorporation. The chairperson receives €50,000 and the deputy chairperson receives €37,500.

The chairperson of the Audit Committee receives an additional €15,000, while other members of the Audit Committee receive an additional €7,500 each. The chairperson of the Presidial Committee receives an additional €10,000, while other members of the Presidial Committee receive an additional €5,000 each. The members of other committees do not receive any additional remuneration.

Any members of the Supervisory Board who leave the Supervisory Board or positions on any of its committees that receive additional remuneration during a fiscal year are remunerated on a pro rata basis.

The members of the Supervisory Board also receive an attendance fee of €750 per meeting, up to a maximum of two meeting fees on one day. Furthermore, SMA has taken out professional indemnity insurance in case one or more members of the Supervisory Board should be subject to a claim for financial loss from a third party or the company based on statutory liability provisions under private law on the grounds of a breach of duty committed in the course of business.

SUPERVISORY BOARD REMUNERATION AND EMOLUMENT AMOUNTS

In accordance with Section 162 (1), sentence 1, sentence 2, no. 1 of AktG, all fixed and variable remuneration components that were "paid and owed" to the individual members of the Supervisory Board in the 2022 fiscal year have to be disclosed. The figures presented in the table below refer to the remuneration components "paid and owed" in the respective fiscal year in accordance with Section 162 (1), sentence 1 of AktG. They thus include all benefits actually allocated or owed in the fiscal year in question, irrespective of the fiscal year for which they were allocated to the members of the Supervisory Board. The amounts for the 2021 fiscal year that were not paid out until the 2022 fiscal year in accordance with the Articles of Incorporation are considered on a value basis.

Remuneration paid and owed to the Supervisory Board in the 2022 fiscal year¹

in €'000	Fixed remuneration		Fixed remuneration for committee duties		Meeting fees		Total
Roland Bent	25.0	87%		0%	3.8	13%	28.8
Martin Breul	25.0	87%		0%	3.8	14%	28.8
Oliver Dietzel	25.0	59%	7.5	18%	9.8	23%	42.3
Kim Fausing ²							
Johannes Häde	25.0	59%	7.5	18%	9.8	23%	42.3
Alexa Hergenröther	25.0	50%	15.0	30%	10.5	20%	50.5
Uwe Kleinkauf	50.0	76%	10.0	15%	6.0	9%	66.0
Ilonka Nußbaumer ²							
Yvonne Siebert	25.0	71%	5.0	14%	5.3	15%	35.3
Romy Siegert	25.0	87%		0%	3.8	14%	28.8
Jan-Henrik Supady	25.0	58%	7.5	17%	10.5	24%	43.0
Dr. Matthias Victor	25.0	69%	5.0	14%	6.0	17%	36.0
Total	275.0		57.5		69.0		401.5

¹ Due to rounding differences, the total amount shown in this table does not correspond exactly to the sum of individual amounts shown in the table.

² Kim Fausing and Ilonka Nußbaumer waived remuneration for the Supervisory Board roles.

Comparison of remuneration and earnings performance

Because remuneration is largely dependent on national conditions, particularly at the subsidiary companies outside Germany, the comparison with the progression in average remuneration is based solely on the remuneration of the workforce of SMA AG. This reference group was also used in the appropriateness assessment on the remuneration of the members of the Managing Board. This considered the remuneration of all employees, including executive staff, as defined in Section 5 (3) of the German Works Constitution Act (BetrVG). Any remuneration additionally received by employees as members of the Supervisory Board of SMA AG was disregarded. For ease of comparison, the remuneration of part-time staff was adjusted to full-time equivalent level.

Comparison of annual changes in Supervisory Board remuneration in accordance with Section 162 (1), no. 2 of AktG

Annual change	2022 vs. 2021	2021 vs. 2020
Supervisory Board remuneration and emoluments¹		
Roland Bent	0%	3%
Martin Breul	73%	
Oliver Dietzel	0%	0%
Kim Fausing ²	0%	0%
Johannes Häde	0%	0%
Alexa Hergenröther	2%	2%
Uwe Kleinkauf	83%	
Ilonka Nußbaumer ²	0%	0%
Yvonne Siebert	-6%	2%
Romy Siegert	73%	
Jan-Henrik Supady	80%	
Dr. Matthias Victor	-4%	2%
Earnings performance		
SMA Solar Technology AG ³	249.4%	-85.7%
SMA group ⁴	728.1%	-88.2%
Average remuneration of employees on full-time equivalent basis		
Employees of the company	3%	8%

¹ Changes depend in particular on the date on which a member joined the Supervisory Board, a member's subsequent departure and the number of meetings attended.

² No remuneration in 2020, 2021 and 2022

³ Annual earnings as referred to in Section 275 (2), no. 17 of HGB.

⁴ EBITDA of the SMA group; The comparative values were adjusted according to IAS 8.42 (see Chapter 2.2)

REPORT OF THE INDEPENDENT AUDITOR ON THE AUDIT OF THE REMUNERATION REPORT IN ACCORDANCE WITH SEC. 162 (3) GERMAN STOCK CORPORATION ACT (AKTG)

To SMA Solar Technology AG, Niestetal

Audit opinion

We have formally audited the remuneration report of SMA Solar Technology AG, Niestetal, Germany, for the financial year from January 1, 2022, until December 31, 2022, whether the disclosures pursuant to Section 162 (1) and (2) AktG were made in the remuneration report. In line with Section 162 (3) AktG, we have not audited the content of the remuneration report.

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

Basis for the audit opinion

We conducted our audit of the remuneration report in accordance with Section 162 (3) AktG and in compliance with IDW Auditing Standard: the Audit of the Remuneration Report in Accordance with Section 162 (3) AktG (IDW PS 870 (08.2021)). Our responsibility under that provision and standard is further described in the "Responsibilities of the auditor" section of our report. Our audit firm applies Quality Assurance Standard: Requirements for Quality Assurance in Audit Practices (IDW QS 1) promulgated by the Institut der Wirtschaftsprüfer (IDW). We have fulfilled the professional responsibilities in accordance with the German Public Auditor Act (WPO) and the Professional Code of Conduct for German Public Auditors and Sworn Auditors (BS WP/vBP), including the requirements for independence.

Responsibilities of the Management Board and the Supervisory Board

The Management Board and the Supervisory Board are responsible for the preparation of the remuneration report, including the related disclosures, which complies with the requirements of Section 162 AktG. They are further responsible for such internal control as they determine is necessary to enable the preparation of the remuneration report, including the related disclosures, that is free from material misstatement, whether intentional or unintentional.

Responsibilities of the auditor

Our objective is to obtain reasonable assurance about whether the information required by Section 162 (1) and (2) AktG has been disclosed in all material respects in the remuneration report and to express an opinion thereon in an auditor's report.

We planned and performed our audit to obtain evidence about the formal completeness of the remuneration report by comparing the disclosures made in the remuneration report with the disclosures required by Section 162 (1) and (2) AktG. In accordance with Section 162 (3) AktG, we did not audit the accuracy of the disclosures, the completeness of the individual disclosures or the fair presentation of the remuneration report.

Handling any misleading representations

In connection with our audit, we have a responsibility to read the remuneration report under consideration of the findings from the audit of the financial statements and, in so doing, to remain alert to any indications that the remuneration report contains misleading representations in terms of the accuracy of the content of the disclosures, the completeness of the content of the individual disclosures or the fair representation of the remuneration report.

If we conclude on the basis of our work that there has been a misleading representation, we are obligated to report this. We have nothing to report in this regard.

Frankfurt am Main, March 9, 2023

BDO AG
Accounting firm

Gebhardt
German Public Auditor

Dr. Faßhauer
German Public Auditor

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FINANCIAL GLOSSARY

E

Earn-out

An earn-out clause in a purchase agreement defines a portion of the purchase price that is paid at a later date on a performance-related basis.

EBIT

Earnings before interest and taxes

EBITDA

Earnings before interest, taxes, depreciation and amortization

EBITDA margin

The higher the percentage, the higher the earnings power. The EBIT margin is calculated by putting operating profit in relation to sales.

EBIT margin

The higher the percentage, the higher the earnings power. The EBIT margin is calculated by putting operating profit in relation to sales.

EBT

Earnings before taxes

Equity ratio

Shows the share of equity in total assets.

F

Free Cash Flow

Operating cash flow minus investments plus negative investments in fixed and intangible assets. Free cash flow is important because it allows a company to pay dividends or to buy back shares. Therefore, free cash flow is a measure of how much cash can be paid to the shareholders of a company.

Free Cash Flow (adjusted)

Operating cash flow minus investments plus negative investments in fixed and intangible assets before cash inflows or outflows from time deposits or investments in securities. Adjusted free cash flow is an indicator of ability to repay debt financing.

G

Gross Cash Flow

Shows the operating income prior to any commitment of funds. It is calculated by considering earnings before income tax and the financial result – plus interest received, depreciation and amortization, changes in other provisions, profit/loss from the disposal of fixed assets and other non-cash expenses/revenues less interest paid and income tax paid.

Gross Profit

Sales minus cost of sales

I

IAS

International Accounting Standards; newer standards refer to the initials IFRS.

IASB

International Accounting Standards Board

IFRIC

Interpretations of the International Financial Reporting Interpretations Committee on IAS/IFRS

IFRS

International Financial Reporting Standards defined by the IASB

N

Net Cash

Liquid funds and securities contained within working capital and cash on hand pledged as collateral less interest-bearing financial liabilities to banks

Net Cash Flow From Financing Activities

Outflow/inflow of liquid funds from equity financing and debt financing

Net Cash Flow From Investing Activities

Outflow/inflow of liquid funds from investments and disinvestments

Net Cash Flow From Operating Activities

Outflow/inflow of liquid funds, unaffected by investments, disinvestments and financing activities

Net Working Capital

The total amount of short-term, interest-free working capital (inventories plus trade receivables less trade payables and liabilities from advanced payments received for orders)

Net Working Capital Ratio

Net working capital in relation to net sales

O

Operating Profit (EBIT)

Earnings before interest and taxes

Order Backlog

This includes current sales and sales expected in the future. In this context, the requirements for all orders pending delivery and deliveries that have already been made but not yet posted as goods issue are taken into account based on their volume and value.

R

Return on Assets (After Taxes)

The return on assets (after taxes) is the consolidated net profit divided by the average total assets of the reporting period (average of total assets at the beginning and end of the reporting period).

Return on Equity (After Taxes)

The return on equity (after taxes) is the consolidated net profit divided by the averaged total equity for the reporting period (average of total equity at the beginning and end of the reporting period).

Return on Sales

Ratio of EBT to sales

REGISTERED TRADEMARKS

The SMA company logo, as well as the names altenso, coneva, emerge, Energy that changes, ennexOS, JOIN, ShadeFix, SMA, SMA Magnetics, SMA Smart Connected, SMA Solar Academy, SMA Solar Technology, SMA Sunbelt, Sunny, Sunny Boy, Sunny Central, Sunny Design, Sunny Highpower, Sunny Highpower Peak, Sunny Home Manager, Sunny Island, Sunny Tripower, Sunny Tripower Core, Zeversolar are registered trademarks of SMA Solar Technology AG in many countries in the world.

DISCLAIMER

The Annual Report, in particular the Forecast Report included in the Management Report, includes various forecasts and expectations as well as statements relating to the future development of the SMA group and SMA Solar Technology AG. These statements are based on assumptions and estimates and may entail known and unknown risks and uncertainties. Actual development and results as well as the financial and asset situation may therefore differ substantially from the expectations and assumptions made. This may be due to market fluctuations, the development of world market prices for commodities, of financial markets and exchange rates, amendments to national and international legislation and provisions or fundamental changes in the economic and political environment. SMA does not intend to and does not undertake an obligation to update or revise any forward-looking statements to adapt them to events or developments after the publication of this Annual Report.

FINANCIAL CALENDAR

2023/5/11	Publication of Quarterly Statement: January to March 2023
2023/5/24	Annual General Meeting 2023
2023/8/10	Publication of Half-Yearly Financial Report: January to June 2023 Analyst Conference Call: 13:30 p.m. (CEST)
2023/11/9	Publication of Quarterly Statement: January to September 2023 Analyst Conference Call: 13:30 p.m. (CET)

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