GEA Engineering for a better world.

ANNUAL REPORT 2023

GEA.com

GEA continues successful trend and once again improves key financial figures; dividend to be further increased accordingly

Order intake down 3.7 percent, particularly due to negative currency translation effects (organic growth of 0.8 percent)

Revenue up 4.0 percent (organic growth of 8.4 percent)

Share of service business increased to 36.1 percent (previous year: 34.9 percent)

Book-to-bill ratio with 1.02 remained positive (previous year: 1.10)

Order backlog still high at EUR 3.1 billion (previous year: EUR 3.2 billion)

EBITDA before restructuring expenses increased to EUR 774 million (previous year: EUR 712 million)

EBITDA margin before restructuring expenses increased further to 14.4 percent (previous year: 13.8 percent)

ROCE continued to rise to 32.7 percent (previous year: 31.8 percent)

Free cash flow rose to EUR 336.9 million (previous year: EUR 295.8 million)

Net working capital as a percentage of revenue remains at a good level with a low 6.4 percent (previous year: 6.1 percent)

Net liquidity increased to EUR 371.2 million (previous year: EUR 346.4 million)

Increased dividend of EUR 1.00 per share proposed (previous year: EUR 0.95)

Outlook 2024:

- Organic revenue growth: 2 to 4 percent
- EBITDA margin before restructuring expenses: 14.5 to 14.8 percent
- ROCE: 29 to 34 percent

Financial Key Figures of GEA

(EUR million)	2023	2022	Change in %
Results of operations			
Order intake	5,469.4	5,678.9	-3.7
Book-to-bill ratio	1.02	1.10	–
Order backlog	3,116.6	3,192.7	-2.4
Revenue	5,373.5	5,164.7	4.0
Organic revenue growth in %[1]	8.4	8.9	-59 bps
Share of service revenue in %	36.1	34.9	127 bps
EBITDA before restructuring expenses	774.3	712.0	8.7
as % of revenue	14.4	13.8	62 bps
EBITDA	713.8	654.0	9.1
EBIT before restructuring expenses	580.6	529.1	9.7
EBIT	519.7	461.0	12.7
Profit for the period	392.8	401.4	-2.2
ROCE in %[2]	32.7	31.8	93 bps
Financial position			
Cash flow from operating activities	537.5	471.6	14.0
Cash flow from investing activities	-200.6	-175.8	-14.1
Free cash flow	336.9	295.8	13.9
Net assets			
Net working capital (reporting date)	345.9	314.1	10.1
as % of revenue (LTM)	6.4	6.1	36 bps
Capital employed (reporting date)[3]	1,673.1	1,590.1	5.2
Equity	2,397.7	2,280.9	5.1
Equity ratio in %	40.3	38.5	175 bps
Net liquidity (+)/Net debt (-)[4]	371.2	346.4	7.2
GEA Shares			
Earnings per share (EUR)	2.28	2.28	-0.1
Earnings per share before restructuring expenses (EUR)	2.56	2.58	-1.0
Market capitalization (EUR billion; reporting date)[5]	6.5	6.9	-5.8
Employees (FTE; reporting date)	18,773	18,236	2.9
Total workforce (FTE; reporting date)	19,562	19,255	1.6

1) Adjusted for portfolio and currency translation effects.
2) EBIT before restructuring expenses of the last 12 months. Capital employed average of the last 4 quarters and excluding goodwill from the acquisition of the former GEA AG by former Metallgesellschaft AG in 1999.
3) Capital employed excluding goodwill from the acquisition of the former GEA AG by former Metallgesellschaft AG in 1999.
4) Including lease liabilities of EUR 154.8 million as of December 31, 2023 (prior year EUR 165.2 million).
5) The market capitalization includes treasury shares. XETRA closing price as of December 29, 2023: EUR 37.69; XETRA closing price as of December 30, 2022: EUR 38.20

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TO OUR SHAREHOLDERS

GEA

FISCAL YEAR 2023

The 2023 financial year was again a year of major global challenges. The wars in Ukraine and the Middle East, a difficult economic situation with high inflation rates and rising interest rates weighed on industry and the economy. Nevertheless, GEA succeeded in further improving its key performance indicators and once again holding its own in a difficult environment.

GEA remains well on track to achieve the ambitious financial targets of its “Mission 26” strategy: organic revenue growth of 4 to 6 percent annually on average, an EBITDA margin before restructuring expenses of more than 15 percent and a ROCE (return on capital employed) of more than 30 percent.

Order intake

Organic growth in order intake amounted to 0.8 percent. Due in particular to negative currency translation effects, however, reported order intake decreased by 3.7 percent to EUR 5,469 million (previous year: EUR 5,679 million). Large orders with a volume of more than EUR 15 million accounted for EUR 386 million (previous year: EUR 419 million).

Group revenue

Group revenue increased by 4.0 percent to EUR 5,373 million (previous year: EUR 5,165 million). Organic growth was significantly higher at 8.4 percent (previous year: 8.9 percent), meaning that the raised forecast of more than 8 percent was clearly achieved.

EBITDA before restructuring expenses

EBITDA before restructuring expenses once again increased significantly to EUR 774 million (previous year: EUR 712 million). The corresponding EBITDA margin before restructuring expenses increased by 0.6 percentage points to 14.4 percent (previous year 13.8 percent). Therefore, the forecast of more than 14.0 percent was achieved.

ROCE (Return on Capital Employed)

GEA also achieved a further improvement in its return on capital employed (ROCE). It rose to 32.7 percent, an increase of almost one percentage point on the previous year’s figure of 31.8 percent and sign of efficient capital utilization. The forecast of more than 32.0 percent was therefore also achieved.

GEA AT A GLANCE

GEA is one of the world's largest suppliers of systems and components to the food, beverage and pharmaceutical industries. The international technology group, founded in 1881, focuses on machinery and plants, as well as advanced process technology, components and comprehensive services.

With more than 18,000 employees, the group generated revenues of about EUR 5.4 billion in more than 150 countries in the 2023 fiscal year. GEA plants, processes, components and services enhance the efficiency and sustainability of customer's production. They contribute significantly to the reduction of CO_2 emissions, plastic usage and food waste. In doing so, GEA makes a key contribution toward a sustainable future, in line with the company's purpose: „Engineering for a better world".

GEA ist listed on the German MDAX, the European STOXX® Europe 600 Index and is among the companies comprising the DAX 50 ESG, MSCI Global Sustainability as well as Dow Jones Sustainability World and Dow Jones Sustainability Europe Indices.

Order intake

5,469
EUR million
Previous year: EUR 5,679 million

Revenue

5,373
EUR million
Previous year: EUR 5,165 million

EBITDA before restructuring expenses

774
EUR million
Previous year: EUR 712 million

EBITDA margin before restructuring expenses

14.4
Percent of revenue
Previous year: 13.8 percent

Dividend proposal

1.00
EUR per share
Previous year: EUR 0.95

Employees

18,773
Full-time equivalents
Previous year: 18,236

SEPARATION & FLOW TECHNOLOGIES DIVISION

World-class components and equipment for production excellence

Separators . Homogenizers . Valves & Pumps

Separation & Flow Technologies encompass process engineering components and machines, including separators, decanters, homogenizers, valves and pumps. These technologies are at the heart of many production processes.

Our solutions contribute to a cleaner environment in numerous industrial applications. They also ensure the efficient separation and homogenization of liquids used in the production of foods, beverages, medicines and home & personal care products that consumers enjoy and rely on. GEA pumps and valves guarantee that raw materials and products move safely and efficiently through plants.

Revenue	EBITDA before restructuring expenses	EBITDA margin before restructuring expenses	Employees
1,511	**396**	**26.2**	**5,072**
EUR million	EUR million	Percent	Full-time equivalents
Previous year: EUR 1,416 million	Previous year: EUR 360 million	Previous year: 25.4 percent	Previous year: 4,907

All figures relate to the fiscal year 2023 respectively 2022 for the previous year.

LIQUID & POWDER TECHNOLOGIES DIVISION

Specialists in processing equipment and integrated solutions

Liquid & Filling Technologies . Powder & Thermal Separation Technologies . New Food

Liquid & Powder Technologies provide processing equipment and integrated solutions for the dairy, food, new food, beverage, chemical and home & personal care industries. The portfolio includes brewing systems, liquid processing, aseptic and non-aseptic filling & packaging, concentration, fermentation, crystallization, purification, drying, powder handling & packaging as well as systems for carbon capture and emission control.

GEA designs, builds, configures and installs versatile and sustainable equipment and technologies, processing lines and complete plants.

Revenue	EBITDA before restructuring expenses	EBITDA margin before restructuring expenses	Employees
1,724	178	10.3	5,607
EUR million	EUR million	Percent	Full-time equivalents
Previous year: EUR 1,716 million	Previous year: EUR 166 million	Previous year: 9.7 percent	Previous year: 5,404

All figures relate to the fiscal year 2023 respectively 2022 for the previous year.

FOOD & HEALTHCARE TECHNOLOGIES DIVISION

Safe foods and medicines for a growing population

Pasta, Extrusion & Milling . Bakery . Slicing & Packaging . Food Application Solutions . Pharma & Healthcare

Food & Healthcare Technologies provide solutions for food processing. This covers preparation, marinating and further processing of meat, poultry, seafood and vegan products, in addition to processing lines for pasta, baked goods, snacks, breakfast cereals, confectionery and pet food. GEA also offers spiral- and tunnel freezers, as well as equipment for slicing and packaging of food.

GEA solutions for the pharmaceutical industry include machines and plants for processing solid dosage forms, including highly potent drugs for batch or continuous production. This portfolio also includes freeze-drying technology for liquids, such as vaccines.

Revenue	EBITDA before restructuring expenses	EBITDA margin before restructuring expenses	Employees
1,029	78	7.6	3,508
EUR million	EUR million	Percent	Full-time equivalents
Previous year: EUR 1,001 million	Previous year: EUR 107 million	Previous year: 10.7 percent	Previous year: 3,571

All figures relate to the fiscal year 2023 respectively 2022 for the previous year.

FARM TECHNOLOGIES DIVISION

Next generation farming

Dairy Farming: Milking, Feeding, Manure, Digital Herd Management, Hygiene & Service

Farm Technologies offer integrated customer solutions for efficient and sustainable high-quality milk production and livestock farming. This includes automatic milking and feeding systems, conventional milking solutions and digital herd management. GEA manure management solutions ensure operators have the right tools for the safe storage, application and upcycling of this important resource.

All solutions are served and fully embedded into our service lifecycle. They are complemented by a wide range of hygiene products and chemicals to promote optimum udder health and superior milk quality.

Revenue	EBITDA before restructuring expenses	EBITDA margin before restructuring expenses	Employees
784	110	14.0	2,045
EUR million	EUR million	Percent	Full-time equivalents
Previous year: EUR 742 million	Previous year: EUR 86 million	Previous year: 11.6 percent	Previous year: 1,909

All figures relate to the fiscal year 2023 respectively 2022 for the previous year.

HEATING & REFRIGERATION TECHNOLOGIES DIVISION

Industrial heating and cooling solutions for climate-friendly production processes

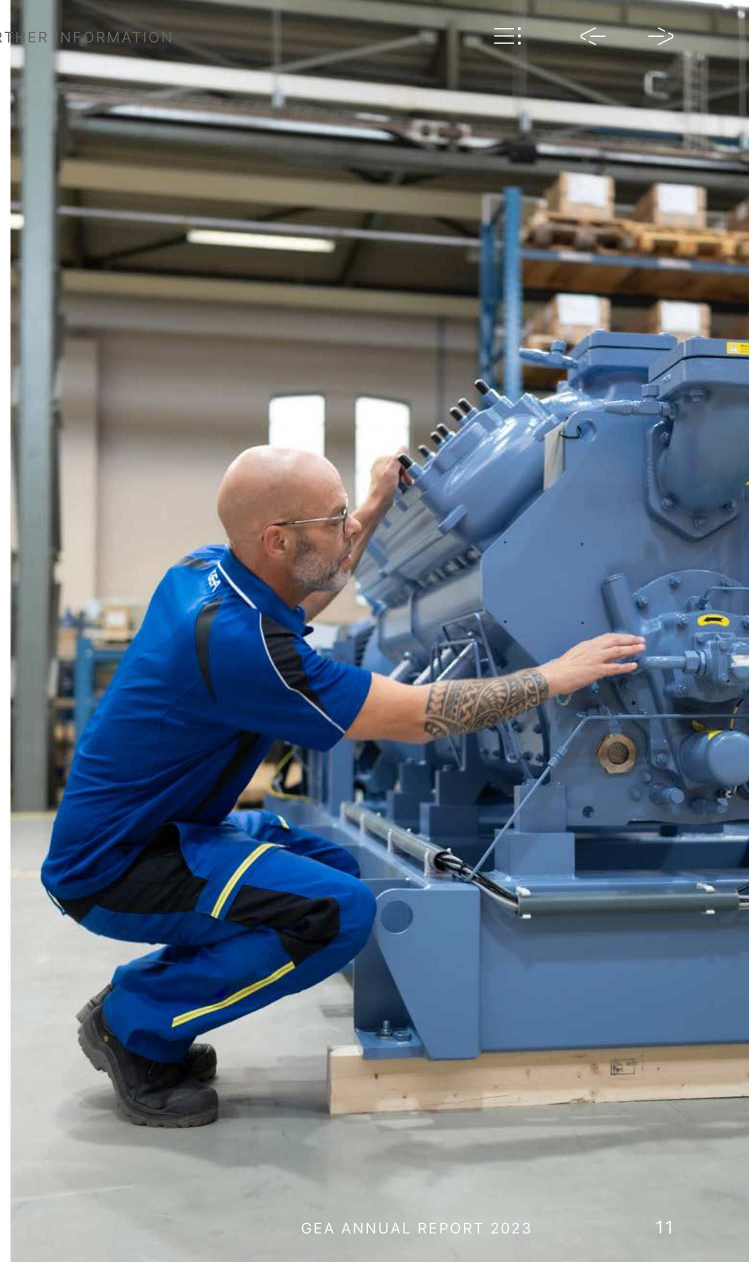
Compressors & Compressor Packages . Heat Pumps . Chillers . Controls . Valves . Turnkey Installations . Digital Solutions

Heating & Refrigeration Technologies combine extensive production process knowledge and integrated heating and cooling expertise. It provides sustainable, energy-saving solutions for customers in the food, beverage and other key industries. All offerings are supported by comprehensive digital and service platforms.

GEA plays an important role in the decarbonization of production processes, cities and other market activities. Via a sustainable engineering solutions platform, which includes a comprehensive portfolio of heat pumps, GEA delivers the precise temperatures critical to each customer's operation. These proven technologies provide integrated, high-efficiency solutions that significantly reduce CO_2 emissions and energy costs.

Revenue	EBITDA before restructuring expenses	EBITDA margin before restructuring expenses	Employees
556	66	11.9	1,757
EUR million	EUR million	Percent	Full-time equivalents
Previous year: EUR 524 million	Previous year: EUR 57 million	Previous year: 10.9 percent	Previous year: 1,716

All figures relate to the fiscal year 2023 respectively 2022 for the previous year.



MISSION 26

Purpose
Engineering for a better world.

Vision
We safeguard future generations by providing sustainable solutions for the nutrition and pharmaceutical industries.

Profitable growth

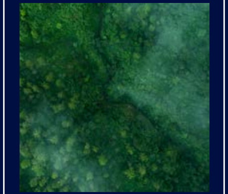
4-6%
Organic Sales CAGR[1]

> 15%
EBITDA margin[2]

> 30%
ROCE[2,3]

Ambitious financial targets

Sustainability

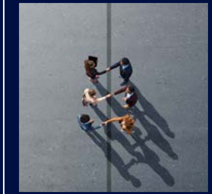


Innovation & Digitalization

New Food

EXCELLENCE

Sales Excellence



Service Excellence

Operational Excellence

Acquisitions

GEA Values	Responsibility	Integrity	Diversity	Passion	Excellence

1) Currency and portfolio adjusted
2) Before restructuring expenses; based on constant exchange rates
3) Capital employed excluding EUR ~800m goodwill from the acquisition of the former GEA AG by former Metallgesellschaft AG in 1999 (average of the last 4 quarters)

Our „Mission 26“ strategy is based on seven key levers intended to accelerate sustainable, profitable growth. As part of this strategy, focus points include sustainability, innovation & digitalisation, new food and excellence initiatives in the areas of sales, service, as well as procurement and production. In addtion, we are examining targeted acquisitions.

With „Mission 26“ we also set ourselves ambitious financial targets until 2026. We expect an avarage organic revenue growth of 4 percent to 6 percent per year, which is intended to result in revenue of some EUR 6 billion. Our profitability – expressed as the EBITDA margin before restructuring expenses – is expected to increase to more than 15 percent. And in terms of return on capital employed (ROCE) on a group-wide basis, we expect a significant improvement to more than 30 percent.

BERND BRINKER, CFO
Bernd Brinker joined the Executive Board as CFO in October 2023. In addition to the Group's finance functions, the five division CFOs, as well as Investor Relations, M&A, Information Security, Internal Audit and global IT also report to him.

STEFAN KLEBERT, CEO
Stefan Klebert took the helm of the Group in February 2019 and is the direct reporting line for the CEOs of the five operating divisions and the four CEOs of the regions. Several central functions also report to Stefan Klebert, and he serves as the Group Labor Relations Director.

JOHANNES GILOTH, COO
Johannes Giloth became a member of the Executive Board in early 2020. He is responsible for worldwide procurement, production as well as supply chain and QHSE.

Stefan Klebert
CEO GEA GROUP AKTIENGESELLSCHAFT

Dear Shareholders,

We have come through a year of major global challenges. The ongoing war in Ukraine, a new conflict in the Middle East and increasing geopolitical tensions are of great concern to us and have had economic impacts. We found ourselves in a challenging business climate, accompanied by high inflation and rising interest rates. These developments have since weighed heavily on industry and the economy.

Amid this crisis-ridden environment, we suffered a painful loss here at GEA. The sudden passing of our CFO, Marcus A. Ketter, was a deep shock for all of us. Marcus was an outstanding CFO, a highly esteemed colleague, and for me personally also a long-time partner and reliable friend. He played a major role in the successful development of GEA in recent years. His professional excellence and distinctive sense of humor enriched our company. We are deeply grateful for everything he did for GEA.

Targets achieved despite headwinds

All things considered, the year 2023 presented a difficult test for our business as a whole. Despite this, GEA performed remarkably well. Our financial results demonstrate our strength and resilience, even in challenging times.

In fact, we achieved all elements of our forecast, which was raised during the year. Our revenue rose by 4.0 percent to EUR 5.4 billion. Organically – that is, adjusted for portfolio and currency translation effects – our revenue grew by 8.4 percent, which clearly meets our communicated target of more than 8 percent revenue growth. This means that we have now achieved organic revenue growth of over 8 percent for two years in a row. It is equally encouraging to see EBITDA before restructuring expenses increase by EUR 62 million to EUR 774 million. The EBITDA margin before restructuring expenses improved accordingly by 0.6 percentage points to reach 14.4 percent and meets our communicated target of more than 14.0 percent. This is the fourth year in a row that we have increased our earnings. We are well on our way to achieving the target for 2026 of more than 15 percent.

The increase in ROCE (Return on Capital Employed) from 31.8 percent percent to 32.7 percent rounds out our success for the 2023 financial year. It demonstrates our efficient capital utilization and shows an attractive return on capital.

Order intake fell by 3.7 percent to EUR 5.5 billion, principally as a result of negative currency translation effects. However, organic order intake showed slight growth of 0.8 percent. The order backlog continues to show robust demand for our products and services with a volume of EUR 3.1 billion. In a challenging macroeconomic environment, it is only 2.4 percent below the previous year.

These figures are the result of an excellent team performance. Yet again, all employees of GEA have shown extraordinary commitment, and I would like to express my heartfelt thanks to every single employee for this!

In addition to strength, we have shown great agility. Within a very short time, we were able to appoint Bernd Brinker as the new Chief Financial Officer. He took over the position with effect from October 16, 2023, initially for a period of one year. Bernd has more than 30 years of financial and capital market experience with global industrial groups, most recently as Group CFO of the publicly traded dormakaba Holding AG. We are confident that his in-depth expertise will contribute significantly to the further development of GEA.

Even more ambitious climate protection

Dear shareholders, all of us here at GEA remain true to our purpose. We are fully committed to “Engineering for a better world.” This commitment and the will to be trailblazers in our industry are part of our identity and ensure our long-term success.

After setting ourselves the ambitious climate target in 2021 of reaching net-zero emissions by 2040, we are stepping up our efforts to achieve this. We are increasing our medium-term climate targets: By 2030, we want to reduce emissions from our operations (scope 1 and 2 emissions) by 80 percent compared with 2019 and by 27.5 percent in scope 3. In addition, we have set ourselves a short-term target for the first time: By 2026, we want to reduce our scope 1 and 2 emissions by 60 percent. We are particularly pleased to report that our medium and long-term targets have been validated by the renowned Science Based Target Initiative (SBTi). You can see from our remuneration system how seriously we take climate protection: The successful reduction of scope 1 and scope 2 emissions has formed part of the long-term variable remuneration of the Executive Board since 2022. From 2024, scope 3 emissions will be added as a target component.

We are also breaking new ground with the Say on Climate resolution, which we plan to introduce at our upcoming Annual General Meeting. This means that we are asking you, our shareholders, to support and approve our 2040 climate plan. We need your positive vote to help us on our way to the net zero target. In short, we are making our climate protection activities as transparent as possible. This plan underscores our leading role when it comes to sustainability. Indeed, GEA is the first company in the DAX index family to pursue such a resolution.

Year of Innovation in Sustainability

Naturally, sustainability also plays a central role in our product development. To accelerate our progress in this area, we declared 2023 the “Year of Innovation in Sustainability.” One of the highlights was the introduction of our new “Add Better” label. It identifies GEA products that achieve substantial savings in terms of energy, greenhouse gas emissions, water or materials compared with their predecessor models. The label, validated by testing service provider TÜV Rheinland, helps our customers make sound decisions that are aligned with their ecological targets.

We also conducted seven ‘Sustainathons’ in 2023. During these workshops – based on the hackathon principle – GEA teams developed ideas for sustainable innovations addressing specific challenges. The best proposals will now be selected for further development. Naturally, the journey to market maturity will require a great deal of perseverance, but the creative approaches show that we are also on the right path in this regard. Due to their great success, we plan to regularly hold Sustainathons from now on.

Another example of our forward-looking approach is our carbon capture technology, which is already used successfully in cement production. This technology captures CO_2 from production processes before it can enter the atmosphere. Once separated, the gas can then be stored or used in industrial processes. Especially in high-emission industries, carbon capture can make an important contribution to reducing greenhouse gas emissions.

A tradition of success; optimistic about the future

As you can see, we have every reason here at GEA to look ahead with confidence. This is also a result of our successful history, which we celebrated in 2023 with a very special anniversary: 130 years of GEA separation technology! What began in a rented barn has grown to become our largest site worldwide today. In Oelde in North Rhine-Westphalia, around 1,900 dedicated employees work on more than 85,000 square meters of production space. The centrifuges manufactured there are used around the world across numerous industries. And we are also investing in the future in this long-established business. We are spending EUR 50 million to modernize our centrifuge plants in Oelde and Niederahr by making them more climate-friendly and efficient. We are proud of this anniversary, which represents our many years of expertise and sophisticated engineering skills.

In conclusion, I would like to really underscore the following: Many things went well in 2023, which is more than encouraging given the adverse circumstances. However, we are not resting on our laurels. In an uncertain world, our focus is on what we can contribute. Especially in the current environment, people need healthy and affordable food as well as effective and safe medications. This is why we are continuously improving our products and services for their production. We are also aware that mechanical engineering is required more than ever before to play a key role in the fight for more climate protection. We are stepping up to this responsibility with an unwavering focus on sustainability – for the sake of our customers and future generations.

On behalf of the Executive Board and our employees, I would like to express my gratitude to you, our shareholders, for your loyalty to GEA. We want you to profit from our performance and the associated positive earnings development. We will therefore propose to the Annual General Meeting that the dividend be increased by five cents compared to the previous year to one euro. This is our way of thanking you for your trust and letting you share in the company’s success. In addition, we have initiated a new and comprehensive share buyback program in November 2023. By the start of 2025, we plan to buy back treasury shares in the amount of EUR 400 million, which will be subsequently retired. We also retired additional treasury shares held by GEA worth EUR 300 million, which we had acquired in previous share buyback programs. In total, this means we will remove GEA shares valued at approximately EUR 700 million from the market. The share buyback program is a clear indication of our confidence in our operational strength.

We want to continue to earn your trust in 2024. We will demonstrate that we can shape a successful future – one in which GEA will achieve sustainable growth and help make the world a better place thanks to its innovative solutions.

I look forward to continuing this exciting journey with you!

Sincerely,

Stefan Klebert

Prof. Dieter Kempf
CHAIRMAN OF THE SUPERVISORY BOARD
OF GEA GROUP AKTIENGESELLSCHAFT

Report of the Supervisory Board

During fiscal year 2023, the Supervisory Board performed the monitoring and advisory functions incumbent upon it by virtue of the law, the Articles of Association and the Rules of Procedure. In doing so, it regularly dealt with the progress and the prospects of the company as well as all specific material issues while continuously advising the Executive Board on matters relating to the management of the company.

The deliberations held during the Supervisory Board meetings and the meetings of its committees form the most important element for the discharge of its duties. In addition, the Executive Board – in compliance with its obligations to provide information – kept the Supervisory Board and its committees up to date through regular, timely and comprehensive written and/or oral reports on all relevant matters and measures relating to the company, its course of business, the forecast, strategy as well as the progress of the group. The Supervisory Board was involved in all decisions of fundamental importance to the company and assisted the Executive Board in an advisory capacity. The members of the Supervisory Board had ample opportunity to critically and constructively examine the reports and proposals for resolutions submitted by the Executive Board – both in the committees as well as during plenary meetings – and to put forward their own proposals. The chairs of the individual committees customarily attended the Supervisory Board meeting in the wake of their respective committee meetings in order to report on the financial results and the main discussion points that emerged from their committee meetings. Their reports frequently provided the full Supervisory Board with valuable and influential insights. In doing so, the in-depth preparatory work undertaken by the committees was instrumental in enhancing the overall effectiveness and quality of the Supervisory Board's activities.

Furthermore, the Chairman of the Supervisory Board and the Presiding and Sustainability Committee, the Chairwoman of the Audit and Cybersecurity Committee (formerly the Audit Committee), and the Chairman of the Innovation and Product Sustainability Committee all maintained regular contact with the Executive Board. Between meetings, the Chairman of the Supervisory Board and the CEO regularly discussed matters of strategy, the forecast, business progress, risk exposure, risk management, InfoSec, compliance, and sustainability. In addition to the meetings, the Chairwoman of the Audit and Cybersecurity Committee remained in regular contact with members of the Executive Board, in particular with the CFO, to be informed of current developments of relevance to the work of the Audit and Cybersecurity Committee and to discuss it if necessary. Furthermore, the Chairwoman of the Audit and Cybersecurity Committee maintained regular contact with the auditors and the Head of Internal Audit. Meetings on relevant topics were also held with individual department heads. To continue the regular contact established between the Chairman of the Supervisory Board and investor representatives on topics within the Supervisory Board's area of responsibility, a governance roadshow was again conducted by the Supervisory Board Chairman in early 2024. Suggestions and criticisms of GEA's corporate governance practices expressed during these discussions with investors are included in the Supervisory Board's work.

On a regular basis, the Supervisory Board received specific information on order intake, revenue and earnings, the employment situation in the group and its divisions, as well as the latest developments concerning the business, supply chain, competition, and geopolitical risks, including their impact on the group and its business activities. Detailed explanations were provided on deviations of business performance from plans and targets based on supporting documents. Prior to and between the meetings, the Executive Board delivered written reports on significant events to the members of the Supervisory Board. The future prospects and the strategic orientation of the company and its divisions, as well as corporate planning, were extensively discussed and jointly agreed upon with the Supervisory Board.

Following comprehensive scrutiny and deliberations as well as discussions at committee level, the members of the Supervisory Board cast their votes on the reports and proposals for resolutions submitted by the Executive Board as far as this was appropriate or required by law, the provisions of the Articles of Association or the Rules of Procedure. For reasons duly substantiated, in particular in matters of special urgency, resolutions were adopted by written procedure.

In the fiscal year under review, there were no conflicts of interest involving members of the Executive Board or the Supervisory Board that would have required immediate disclosure to the Chairman of the Supervisory Board and communication to the Annual General Meeting.

Focus areas of Supervisory Board deliberations

In fiscal year 2023, a total of eight meetings of the Supervisory Board were held, one of which was an extraordinary meeting. The Supervisory Board emphasized the following key topics at its meetings during the reporting period: corporate strategy and growth strategy, financial reporting and financial performance including the impact of inflation, compliance, geopolitical risks, and their impact on GEA, as well as the subjects of markets, customers and customer satisfaction, competition, and sustainability. Prior to the full Supervisory Board meetings, employee representatives discussed material topics with the Executive Board. Since the beginning of May 2021, shareholder representatives have also been consulting regularly with the Chairman of the Supervisory Board in advance of Supervisory Board meetings.

At its meeting on February 9, 2023, the Supervisory Board dealt with the preliminary key figures for 2022. The full Supervisory Board meeting also discussed changes to Supervisory Board remuneration and proposed a retroactive resolution to the Annual General Meeting in order to apply the increase in remuneration for Supervisory Board members to the entire fiscal year 2023. A recommendation that Supervisory Board members commit voluntarily to purchasing GEA shares was also made in this context. The majority of Supervisory Board members have acted on this recommendation. A more detailed explanation can be found in the Remuneration Report. The Supervisory Board was also informed about InfoSec in the group. In addition, the Supervisory Board passed a resolution on the achievement of targets for variable remuneration of the Executive Board in 2022. Moreover, the Chairman presented the final results of the efficiency audit of the Supervisory Board, which was conducted during the previous year.

Furthermore, a training course on risk management was held in advance of the Supervisory Board meeting on February 9, 2023. This course will also be held at regular intervals in subsequent years.

At the Supervisory Board meeting on March 2, 2023, the annual financial statements, including the appropriation of profits, were adopted and the consolidated financial statements for the 2022 fiscal year were approved. In addition, the Supervisory Board adopted proposed resolutions related to specific agenda items for the virtual Annual General Meeting. Furthermore, the Chief Operating Officer reported on the activities in his area of responsibility, including Quality, Health, Safety and Environment (QHSE). In addition, the Supervisory Board conducted a detailed review of the report of the Chief Compliance Officer on the previous fiscal year 2022 and of preparations for the strategy meeting of the Supervisory Board in June 2023. The Food & Healthcare Technologies division was also presented.

At the Supervisory Board meeting held in advance of the virtual Annual General Meeting on April 27, 2023, the members thoroughly addressed business performance during the first quarter of 2023. The Supervisory Board also approved an amendment to the 2023 budget and the amended Executive Board targets for fiscal year 2023. The Supervisory Board was also briefed on the specific details of this year's virtual Annual General Meeting.

At its meeting on February 21, 2023, the Supervisory Board dealt with a range of matters including the results of the shareholder structure analysis and the rating of the GEA share. The Supervisory Board also discussed the results and findings of this year's efficiency audit of the Supervisory Board, which was conducted internally based on a questionnaire. The Supervisory Board also adopted the pension adjustment for former Executive Board members as well as an amendment to the Rules of Procedure regarding the responsibility of the Audit Committee for cybersecurity. The Asia Pacific region as well as the Western Europe, Middle East & Africa and Latin America regions were discussed. Furthermore, the Supervisory Board received InfoSec training during the meeting and was informed about changes to the use of digital meeting management.

On June 22, 2023, the Supervisory Board held its annual strategy meeting, at which the Executive Board presented the current implementation status for the company's medium-term strategy, Mission 26. Mission 26 focuses on themes ranging from sustainability, innovation & digitalization, and new food, as well as three excellence initiatives in the areas of sales, service, and operations, to the review of potential acquisitions.

In its meeting on September 20, 2023, the Supervisory Board discussed the successor to the CFO and appointed Mr. Bernd Brinker as the new CFO for an initial term of one year to succeed Marcus A. Ketter, who passed away suddenly. Furthermore, the full Supervisory Board meeting addressed the shareholder structure analysis as well as possible measures arising in this context. The Supervisory Board members also began to consider the targets for variable Executive Board compensation in 2024. In addition, the Supervisory Board discussed current operational issues and received an update from the North America region.

At the extraordinary Supervisory Board meeting on November 7, 2023, the Supervisory Board discussed a range of issues including the buyback of treasury shares and approved a resolution for their cancellation. The Supervisory Board also recommended that PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft be proposed as auditors for the company for the fiscal year 2024 at the Annual General Meeting on April 30, 2024.

At its meeting on December 7, 2023, the Supervisory Board deliberated on the medium-term planning for the years 2024–2026 and approved the budget for 2024. The December meeting also covered the topics of succession planning for the Executive Board and management development. In addition, the Supervisory Board addressed the preliminary 2023 target achievement for variable Executive Board compensation and defined and adopted performance criteria for the annual bonus for the 2024 fiscal year and the 2024-2027 LTI tranche. The Supervisory Board was careful to ensure that both the performance criteria defined for the 2024 LTI tranche as such and their calibration directly contribute to the achievement of the targets set as part of the Mission 26 strategy.

At its meeting on December 7, 2023, the Supervisory Board also resolved the key points on the planned agenda item "Say on Climate" for the upcoming Annual General Meeting. The regions Germany, Austria, Switzerland (DACH) & Eastern Europe (EE) as well as Northern and Central Europe were also discussed.

For fiscal year 2024, we plan to provide training for Supervisory Board members on topics such as sustainability. This training will also encompass climate and other sustainability risks and their integration into the risk management system. In subsequent years, the Supervisory Board will also receive regular training on risk management.

In addition to these seminars organized by the company, the members of the Supervisory Board are also supported in the organization and financing of necessary or useful training measures, for example, on topics relevant to the Audit and Cybersecurity Committee.

Work of the committees

The Presiding and Sustainability Committee held six meetings in the past fiscal year and focused on ongoing M&A projects, the Mission 26 corporate strategy, Executive Board matters (particularly the appointment of a successor to the position of CFO), as well as succession planning and personnel and management development. In making the decision to appoint a new CFO, the committee was aware of the set target of a minimum 25 percent share of women or one woman in the Executive Board by December 31, 2026. There is also an agreement on wanting to continue to achieve this target in the future. Nevertheless, given Bernd Brinker's high level of expertise, many years of experience and availability at short notice, the Supervisory Board decided on the recommendation of the Presiding and Sustainability Committee to appoint him to the position of Chief Financial Officer for an initial period of one year.

The Audit and Cybersecurity Committee (formerly the Audit Committee) held four meetings during the year under review. In the presence of the auditors and the CFO, it focused primarily on the annual financial statements and the consolidated financial statements for 2023, the quarterly statements and half-yearly financial report for 2023, and the non-financial group statement. Furthermore, the Committee's key activities included matters such as the effectiveness of the internal control, risk management and audit systems, the audit of the annual financial accounts as well as compliance. The group's Chief Information Security Officer (CISO) reported on InfoSec issues at each regular meeting of the Audit and Cybersecurity Committee. The Audit and Cybersecurity Committee also deliberated on the accounting process and the sustainability reporting, including the EU Taxonomy Regulation. At least once a year, the Senior Vice President Corporate Tax, Customs and Foreign Trade reports on relevant matters to one of the regular meetings. The auditors provided a detailed explanation of their audit activities, the audit process, and the audit findings to the Committee. The Audit and Cybersecurity Committee also addressed the subject of audit quality.

In addition, the Audit and Cybersecurity Committee submitted its proposal for the appointment of an auditor for the preceding fiscal year to the Supervisory Board, dealt with the engagement of the auditor of the annual financial accounts, set the audit process and the key audit areas including audit fees, ensured the required independence of the auditor and addressed the permitted non-audit services provided by the latter during fiscal year 2023.

As the committee responsible for the auditor selection process during fiscal year 2023, the Audit and Cybersecurity Committee was also involved in all relevant processes and decision-making steps for issuing the tender for the auditor selection in 2024. Based on the resolution of the Audit Committee of November 3, 2022, GEA re-tendered the review of the condensed interim consolidated financial statements and the group management report for the first six months of fiscal year 2024 and the audit of the annual and consolidated financial statements as of December 31, 2024. To ensure an efficient and effective selection process, a project group was established to provide operational support to the Audit and Cybersecurity Committee. The GEA Executive Board provided the Audit and Cybersecurity Committee with sufficient resources.

The Nomination Committee consists of three members selected from the shareholder representatives. In advance of the election of new Supervisory Board members, the committee suggests suitable candidates to the Supervisory Board, whom the Supervisory Board can have appointed by the court or propose for election at the Annual General Meeting. The Nomination Committee's selection process is based on the diversity concept adopted by the Supervisory Board including the competence profile of the Supervisory Board. The committee generally meets in conjunction with upcoming changes to the company's Supervisory Board. In doing so, it regularly checks whether the diversity concept, including the competence profile for the composition of the Supervisory Board, needs additions or updates. In fiscal year 2023, the Nomination Committee met four times and dealt in particular with finding a replacement to fill the vacancy in the Supervisory Board resulting from the resignation of Mr. Jörg Kampmeyer.

The Innovation and Product Sustainability Committee held two meetings in fiscal year 2023. The committee focused on innovation activities and product sustainability, as well as monitoring risk areas related to intellectual property within the group. Important innovation projects such as new food and projects that focus on sustainability were presented and discussed at these meetings. With the support of the Karlsruhe Institute of Technology (KIT), the committee also examined a range of topics that included carbon dioxide treatment processes as well as forward-looking and sustainable production processes. In the December meeting, product, and process digitalization, as well as modularization, were examined in detail.

The Mediation Committee did not meet in the year under review. The committee chairs briefed the Supervisory Board on the activities undertaken by their committees during the Supervisory Board meetings held after the respective committee meetings.

Length of Supervisory Board membership and disclosure of individual meeting attendance

In fiscal year 2023, the meetings of the Supervisory Board and the committees were held as in-person meetings in principle. However, the members still had the option of participating in the meetings virtually. Supervisory Board members who were unable to attend meetings of the Supervisory Board or its committees were excused and usually cast their votes in writing.

	Prof. Dieter Kempf (Chairman)	Rainer Gröbel (Deputy Chairman)	Nancy Böhning	Claudia Claas	Roger Falk	Prof. Jürgen Fleischer	Michael Kämpfert	Jörg Kampmeyer[1]	Prof. Dr. Annette G. Köhler	Brigitte Krönchen	Holly Lei	Andreas Renschler[2]	Dr. Jens Riedl
Length of time on the Supervisory Board	2 years	23 years	2 years	3 years	3 years	3 years	17 years	1,75 years	3,5 years	9 years	3 years	0,5 years	2 years
End of current term	2026	2025	2025	2025	2025	2025	2025	2023	2025	2025	2025	2024	2025
Supervisory Board meetings 2023	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**5**	**8**	**8**	**8**	**3**	**8**
thereof attendance in person	8 100%	8 100%	7 88%	8 100%	8 100%	5 63%	8 100%	3 60%	7 88%	8 100%	3 38%	2 67%	5 63%
thereof attendance virtually	0 0%	0 0%	1 13%	0 0%	0 0%	3 37%	0 0%	1 20%	1 12%	0 0%	4 50%	1 33%	2 25%
Attendance in total	**8 100%**	**8 100%**	**8 100%**	**8 100%**	**8 100%**	**8 100%**	**8 100%**	**4 80%**	**8 100%**	**8 100%**	**7 88%**	**3 100%**	**7 88%**
Presiding and Sustainability Committee meetings 2023	**6**	**6**			**6**								**6**
thereof attendance in person	5 83%	5 83%			5 83%								4 67%
thereof attendance virtually	1 17%	1 17%			1 17%								1 17%
Attendance in total	**6 100%**	**6 100%**			**6 100%**								**5 83%**
Audit Committee meetings 2023	**4**			**4**					**4**	**4**			
thereof attendance in person	4 100%			4 100%					4 100%	4 100%			
thereof attendance virtually	0 0%			0 0%					0 0%	0 0%			
Attendance in total	**4 100%**			**4 100%**					**4 100%**	**4 100%**			
Innovation and Product Sustainability Committee meetings 2023					**2**	**2**		**1**		**2**		**1**	
thereof attendance in person					2 100%	2 100%		0 0%		2 100%		1 100%	
thereof attendance virtually					0 0%	0 0%		0 0%		0 0%		0 0%	
Attendance in total					**2 100%**	**2 100%**		**0 0%**		**2 100%**		**1 100%**	
Nomination Committee meetings 2023	**4**								**4**				**4**
thereof attendance in person	0 0%								0 0%				0 0%
thereof attendance virtually	4 100%								3 75%				4 100%
Attendance in total	**4 100%**								**3 75%**				**4 100%**

1) Left on August 31, 2023
2) Appointed by the court effective September 1, 2023

Corporate Governance

The Supervisory Board continuously monitors the development of Corporate Governance standards. The current Declaration of Conformity is based on the German Corporate Governance Code (GCGC) as amended on April 28, 2022, which has been in force since its publication in the Federal Gazette by the Federal Ministry of Justice and Consumer Protection (BMJV) on June 27, 2022. On December 7, 2023, the Executive Board and the Supervisory Board issued the current Declaration of Conformity in accordance with section 161 of the Aktiengesetz (AktG – Stock Corporation Act) and made it permanently accessible to the general public on the company's website at wwww.gea.com under "Company – Investors – Corporate Governance – Declaration of Conformity". Further information on corporate governance can be found in the Corporate Governance Statement.

Annual financial statements and consolidated financial statements 2023

The 2023 annual financial statements of GEA Group Aktiengesellschaft, the consolidated financial statements prepared in accordance with IFRS and the combined management report and remuneration report were audited by KPMG AG Wirtschaftsprüfungsgesellschaft and received an unqualified audit opinion. Since fiscal year 2011, KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin, has audited the financial statements of GEA Group Aktiengesellschaft and the group. The head auditor responsible for conducting the audit from fiscal year 2018 to 2022 has been Michael Jessen. For the fiscal year 2023, Dr. Philipp Ohmen was the head auditor responsible for conducting the audit. The last tender for auditing services took place in fiscal year 2023 for fiscal year 2024.

The combined group management report, the remuneration report, the annual financial statements of GEA Group Aktiengesellschaft, the proposal for the appropriation of net retained profits as well as the consolidated financial statements and the audit reports for fiscal year 2023 were extensively discussed during the meeting of the Audit and Cybersecurity Committee on March 5, 2024 and at the Supervisory Board meeting for approval and signing off on the financial statements held on March 6, 2024 in the presence of the auditors. The auditors reported on the audit process and the key findings of their audit. They were also available to answer questions.

On the basis of the final result of the examination by the Audit and Cybersecurity Committee and after conducting its own examination, the Supervisory Board agreed with the auditors' findings at its meeting on March 6, 2024, and found that there were no objections to be raised. The Supervisory Board approved the 2023 consolidated financial statements, the 2023 annual financial statements of GEA Group Aktiengesellschaft, the remuneration report and the combined group management report. In doing so, the annual financial statements of GEA Group Aktiengesellschaft were thus officially adopted. The Supervisory Board considers the proposal for the appropriation of net earnings to be reasonable.

The review of the company's consolidated non-financial statement for fiscal year 2023 by the Supervisory Board pursuant to section 171(1) of the AktG was supported by a Limited Assurance Engagement conducted by KPMG. For this purpose, KPMG audited GEA's risk assessment regarding relevant information about the company's sustainability performance, evaluating the design and implementation of systems and processes designed to ascertain, process, and monitor disclosures on environmental, employee-related, and social matters, human rights, corruption, and bribery, including data consolidation. Referring to the auditor's findings, the Audit and Cybersecurity Committee also conducted its own audit proceedings to ensure that the data submitted complied with the statutory requirements. The Chairwoman of the Audit and Cybersecurity Committee informed the Supervisory Board accordingly.

Changes in the composition of the Supervisory Board and the Executive Board

Prof. Dieter Kempf, who was already appointed by the court as a new member of the Supervisory Board with effect from May 16, 2022, and elected by the Supervisory Board as Chairman and by the shareholder representatives as a member of the Audit and Cybersecurity Committee, was appointed by resolution of the Annual General Meeting of April 27, 2023, as a member of the Supervisory Board. In addition, Prof. Kempf was re-elected Chairman by the Supervisory Board. He was also elected as a member of the Audit and Cybersecurity Committee by the shareholder representatives on the Supervisory Board.

Jörg Kampmeyer stepped down as a shareholder representative on the Supervisory Board for personal reasons with effect from August 31, 2023. Andreas Renschler was appointed by the court as his replacement on the Supervisory Board with effect from September 1, 2023. Andreas Renschler was also appointed as a new member of the Innovation and Product Sustainability Committee with effect from September 1, 2023.

New Supervisory Board members are given an overview of material topics as part of a detailed onboarding program. The onboarding process includes a personalized introduction, meetings with the Executive Board members and visits to selected sites. Furthermore, new Supervisory Board members are provided with a comprehensive information package that includes not only the Articles of Association and rules of procedure for the Supervisory Board, its committees and the Executive Board but also the diversity concept including the competence profile of the Supervisory Board as well as information about requirements under capital market law for Supervisory Board members and D&O insurance.

At its meeting on September 20, 2023, the Supervisory Board appointed Bernd Brinker as a member of the Executive Board and as Chief Financial Officer from October 16, 2023, until October 15, 2024. For a period of one year, Bernd Brinker will succeed Marcus A. Ketter, who passed away suddenly on August 6, 2023.

The Supervisory Board wishes to express its gratitude, appreciation and great respect to the Executive Board, the senior management teams, employee representative bodies and, in particular, to all employees of GEA, for their commitment and hard work during the past fiscal year.

Düsseldorf, March 6, 2024

Prof. Dieter Kempf
Chairman of the Supervisory Board

GEA SHARES/INVESTOR RELATIONS

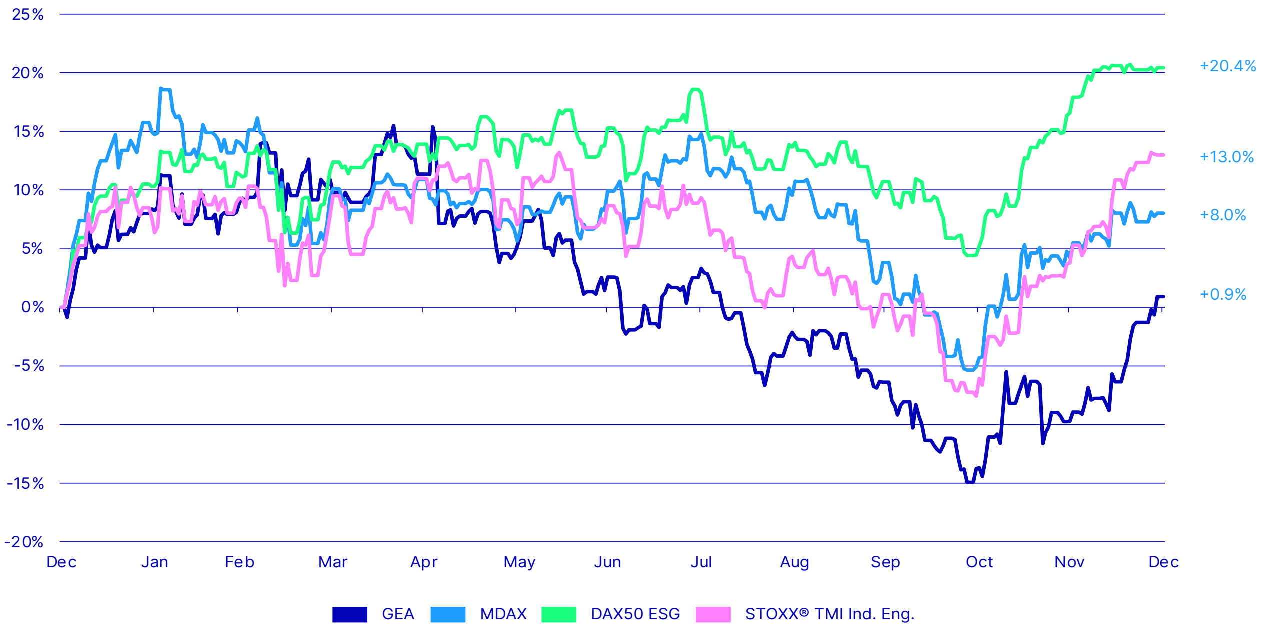
GEA shares in the capital markets

Stock markets were volatile in 2023, largely due to rising interest rates and recession fears. GEA's shares closed the year at EUR 37.69, a slight decrease compared to the previous year's closing of EUR 38.20.

Considering the reinvestment of the dividend payment of EUR 0.95, GEA's share price rose by 0.9 percent. As a result, GEA underperformed the MDAX (+8.0 percent), the European sector index STOXX® Europe TMI Industrial Engineering (+13.0 percent) and the DAX 50 ESG (+20.4 percent). GEA's share price reached its high point for the year 2023 with a closing price (XETRA) of EUR 44.52 on March 7 and its low point for the year on October 26, closing at EUR 31.69.

GEA shares have been a long-running part of the MDAX and other national and international indices for many years. GEA was among the 50 companies included in the DAX 50 ESG Index at its inception in 2020 thanks to its exemplary approach to environmental, social, and corporate governance issues. GEA has been included in the Dow Jones Sustainability Europe Index (DJSI Europe) since December 2022, and was also added to the Dow Jones Sustainability World Index (DJSI World) for the first time in December 2023.

Performance of GEA shares in 2023 compared to benchmark indices



*) Assuming reinvestment of the dividend payment of EUR 0.95

Shareholder structure

On November 21, 2023, GEA retired 8,161,096 treasury shares that had been repurchased as part of the share buyback program between August 2021 and the end of 2022, with a total volume of around EUR 300 million. On December 31, 2023, the number of shares with voting rights is now 172,331,076. On November 7, 2023, GEA announced that the company would be purchasing additional shares on the stock exchange for an amount of up to EUR 400 million (excluding transaction costs) in the period between November 2023 and the beginning of 2025, based on the authorization granted by the Annual General Meeting on April 27, 2023. As part of the share buyback program commenced on November 9, 2023, a total of 1,451,583 outstanding shares were repurchased by December 2023 at an average price of EUR 34.26 and are now held as treasury shares (equivalent to around 0.8 percent of all shares). The shares acquired under the new buyback program are also due to be retired at the end of the program without reducing the share capital. The market capitalization of GEA Group Aktiengesellschaft at the end of 2023 amounted to EUR 6.5 billion (previous year: EUR 6.9 billion).

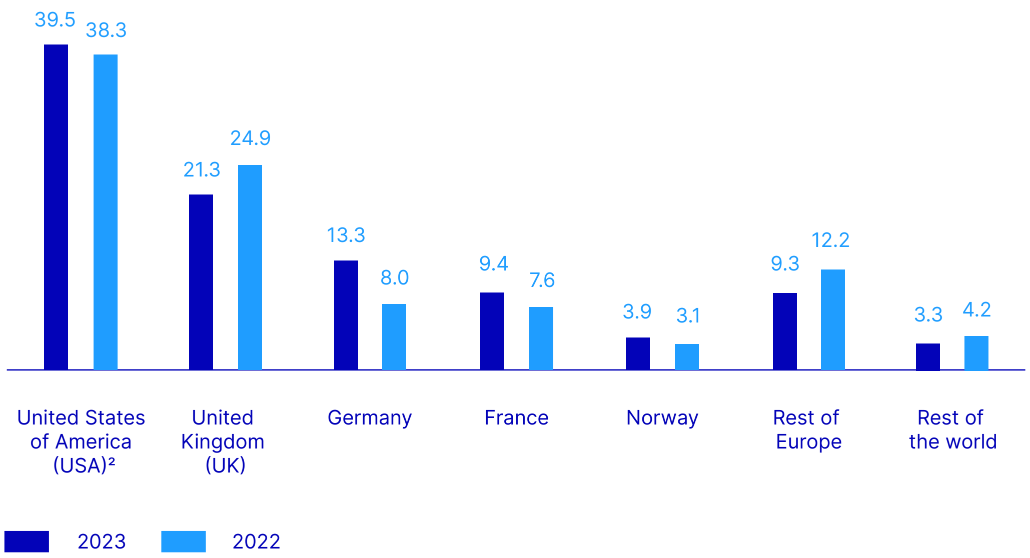
GEA continued to analyze its shareholder structure on a regular basis in fiscal year 2023. The most recent analysis was performed in December 2023 and identified 94.5 percent of all 172.3 million shares. According to the analysis, institutional investors held 76.8 percent of all shares. Major shareholders accounted for 8.8 percent and retail investors for 8.1 percent of the shares. 0.8 percent were held as treasury shares at the time of the analysis.

On November 21, 2023, major shareholder Oliver Capital (the principal shareholder of Groupe Bruxelles Lambert) announced that it had sold 11.25 million GEA Group AG shares. The background to this is GBL's previously communicated strategy of no longer wanting to hold minority interests in companies, but to concentrate on majority shareholdings. As a result, Oliver Capital is no longer considered a major shareholder of GEA as defined by Deutsche Börse AG. GEA now only has one investor – Kuwait Investment Office (KIA) – that is deemed to be a major shareholder according to such definition. Based on the latest information available to the company, KIA holds a stake of 8.8 percent (approximately 15.2 million shares). Neither this stake nor the 0.8 percent held as treasury shares count as free float. According to Deutsche Börse AG, GEA's free float was 90.4 percent as of December 31, 2023.

From a regional perspective, investors from Germany, the United States, France, and Norway increased their positions compared to the previous year. Investors from the United Kingdom and other countries have slightly reduced their positions compared to 2022.

Regional breakdown of institutional shareholders[1]

(in %)



1) Based on 76.8% of identified shares held by institutional investors as of December, 2023
2) Figures for 2022 were corrected in the current survey

Investor relations activities 2023

GEA engages in regular dialog with capital market participants in addition to quarterly financial reporting. Roadshows and conferences with investors and analysts were held once again in the last fiscal year, both in person and online. In 2023, GEA participated in 18 investor conferences and hosted 14 roadshows – some of which were attended by the company's CEO and/or the CFO. During these events, GEA held more than 250 individual and group meetings. These meetings focused on the impact of rising interest rates, exchange rate fluctuations, a possible recession on business performance and the operating performance of the individual divisions. Other topics included the progress of the "Mission 26" strategy, updates regarding our financial targets for 2023 and – towards the end of the year – revenue and earnings forecasts for fiscal year 2024.

The company was once again recognized for its regular, proactive dialog with investors and analysts in fiscal year 2023. In September 2023, manager magazin and the HHL Leipzig Graduate School of Management awarded GEA the title of Investors' Darling for the second year in a row. As in the previous year, GEA came first in the MDAX category in the most comprehensive competition for financial communication in Germany.


2023
Investors' Darling
Der umfassendste Wettbewerb für Finanzkommunikation

Beim umfassendsten Wettbewerb für Finanzkommunikation in Deutschland, dem Investors' Darling, ehren das manager magazin und die HHL Leipzig Graduate School of Management die CFOs, die ihre Anleger besonders klar und detailliert informieren.

Kategorie MDax
1. PLATZ

GEA Group AG
Marcus A. Ketter, CFO

Michael Freitag
manager magazin
Hamburg, den 21.09.2023

Prof. Dr. Henning Zülch
HHL Leipzig Graduate School of Management
Hamburg, den 21.09.2023

Entscheidend für die Bewertung ist, ob das Unternehmen ein umfassendes Bild der Strategie vermittelt und klar über seine Ertrags-, Finanz-, und Risikolage berichtet – auch auf Segmentebene. Die Analyse umfasst auch Qualitätskriterien zur Nachhaltigkeitsberichterstattung, Digitalisierung und Krisenkommunikation. Geprüft werden Reporting (40 Prozent), Investor Relations (30 Prozent) sowie die Resonanz am Kapitalmarkt (Investorenumfrage 20 Prozent, Kursperformance 10 Prozent).

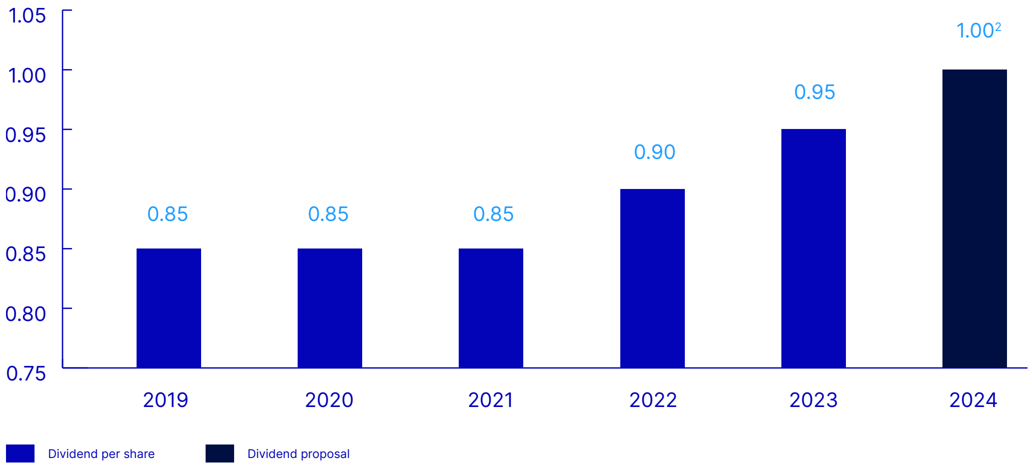
HHL LEIPZIG GRADUATE SCHOOL OF MANAGEMENT
manager magazin
In Kooperation mit BERENBERG

Dividend policy

GEA has a strong and sustainable business model. As the parent company, GEA Group Aktiengesellschaft wants its shareholders to participate in this with an attractive dividend. A regular payout ratio is targeted of approximately 50 percent of consolidated earnings before restructuring expenses. Furthermore, in the interest of an attractive dividend policy, dividend is to increase by 5 cents each year.

In the light of the positive earnings development during fiscal year 2023, the Executive Board and Supervisory Board will propose that the Annual General Meeting approve the payout of a dividend of EUR 1.00 per share, an increase of 5 cents over the previous year. Based on the closing price on December 31, 2023, this corresponds to a dividend yield of 2.7 percent.

Dividend payments[1] for the last 5 years and dividend proposal 2024
(in EUR)



1) Dividend payments respectively for the preceding fiscal year
2) Based on dividend proposal and number of shares outstanding as of December 31, 2023

Credit ratings/Debt market

Rating agencies assess the creditworthiness of a company and its ability to honor its financial obligations in full and on time. These agencies determine a company's credit rating through regular meetings with a company's management and finance department, and by conducting their own extensive analyses. These ratings serve to evidence the company's creditworthiness to existing and prospective debt capital providers and other entities.

The international agencies Moody's and Fitch have been publishing credit ratings on GEA Group Aktiengesellschaft for many years. In March 2023, Moody's assigned a rating at the top end of the Baa2 credit rating and raised the outlook from stable to positive. In April 2023, Fitch also affirmed the BBB credit rating and left the outlook unchanged at stable. These assessments reflect GEA Group Aktiengesellschaft's solid liquidity situation, improved credit indicators, robust business model and robust business model, despite the uncertain economic situation. As a result, GEA Group Aktiengesellschaft's credit ratings remained within the investment grade range.

	31.12.2023		31.12.2022	
Agency	Rating	Outlook	Rating	Outlook
Moody's	Baa2	positive	Baa2	stable
Fitch	BBB	stable	BBB	stable

COMBINED GROUP MANAGEMENT REPORT

ABOUT THIS REPORT

This combined management report refers to both the GEA Group and GEA Group Aktiengesellschaft. Since the course of business, the economic position, and the opportunities and risks associated with the future development of GEA Group Aktiengesellschaft do not differ from those of the group, the management reports of GEA Group Aktiengesellschaft and of the consolidated group have been combined in accordance with section 315 (5) of the Handelsgesetzbuch (HGB – German Commercial Code). In contrast to the consolidated financial statements, which are prepared in accordance with IFRS, the annual financial statements of GEA Group Aktiengesellschaft are prepared in accordance with HGB and the Aktiengesetz (AktG – German Stock Corporation Act). The combined management report also includes information related to takeovers and the corporate governance statement.

The non-financial group statement is prepared in accordance with Sections 315b, 315c in conjunction with Sections 289c to 289e of the Handelsgesetzbuch (HGB - German Commercial Code) as part of the management report. GEA also publishes a separate sustainability report. GEA's non-financial reporting is carried out in accordance with the international standards of the Global Reporting Initiative (GRI).

02

FUNDAMENTAL INFORMATION ABOUT THE GROUP

Group business model

Organization and structure

The Group

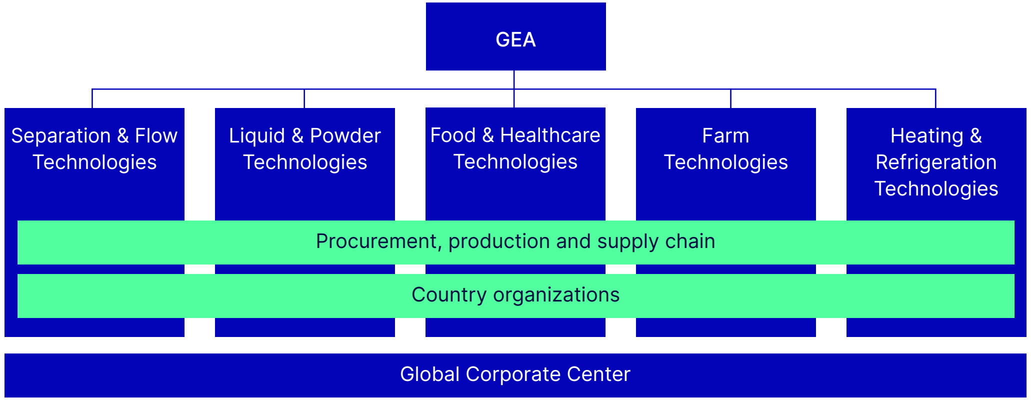
The GEA Group (GEA) is one of the largest suppliers of systems and components to the food, beverage, and pharmaceutical industries. The international technology group specializes in machinery and plant, together with process technology and components. As such, GEA provides solutions for sophisticated production processes in diverse end-user markets and offers a comprehensive service portfolio as well. In doing so, GEA helps its customers make their production processes more sustainable and efficient.

The group is a specialist in its core technologies and a leader in many of its markets* worldwide. GEA promotes a strong innovation-led culture in order to maintain its technological edge in the future. Details can be found in this section under “Research and development”.

The group’s long-term success is based on key global megatrends, in particular:

- Growing and aging global population
- Growth of the middle class
- Healthy and safe nutrition
- Essential and affordable medicine
- Sustainable, efficient and resource saving production processes
- Digitalization

*) We define “market leadership” as holding the first, second or third place – measured by revenue – in the relevant market for the respective business unit.



Group structure

The GEA Group consists of GEA Group Aktiengesellschaft (AG), as the central management company, and its subsidiaries. GEA Group Aktiengesellschaft is home to the group's central management functions. It has profit and loss transfer agreements in place with its main German subsidiaries.

GEA Group Aktiengesellschaft also conducts financial and liquidity management for the entire group. GEA Group Aktiengesellschaft and GEA Group Services GmbH provide all GEA subsidiaries primarily with services from the Global Corporate Center on the basis of service agreements.

GEA operates in five divisions, each comprising up to five business units, each of which is based on similar technologies. Each division is headed by a management team consisting of three members: a division CEO (Chief Executive Officer), a division CFO (Chief Financial Officer) and a division CSO (Chief Service Officer). The CSO role for each division underscores the significance of the high-margin and growing service business for GEA.

To increase the involvement of the division CEOs and regional CEOs in company decisions, there is an extended management board – the Global Executive Committee (GEC). Alongside the Executive Board members, the GEC is made up of the CEOs of the divisions and sales regions, as well as the Head of Human Resources and the Head of Sustainability. The GEC meets once a month and addresses all major strategic and operational matters. The GEC members report to GEA's CEO.

Five divisions

Separation & Flow Technologies

Separation & Flow Technologies encompasses process engineering components and machines that are at the core of many production processes, such as separators, decanters, homogenizers, valves, and pumps.

Liquid & Powder Technologies

Liquid & Powder Technologies provides process solutions for industries such as the dairy, new food, food, and beverage industries, as well as the chemicals sector. The portfolio includes brewery plants, liquid processing and filling, concentration, precision fermentation, crystallization, purification, drying, powder handling and packaging, as well as carbon capture and emission control systems.

Food & Healthcare Technologies

Food & Healthcare Technologies offers solutions for food processing. This includes preparation, marinating and the further processing of meat, poultry, seafood, and vegan products, as well as process lines for pasta and confectionery production, baking, slicing, and packaging, and frozen food processing. For the pharmaceutical industry, the product range includes freeze-drying, granulation systems and tablet presses.

Farm Technologies

Farm Technologies offers integrated customer solutions for efficient, sustainable, and high-quality milk production and livestock farming. This includes automatic milking and feeding systems, conventional milking solutions, manure handling and digital herd management tools.

Heating & Refrigeration Technologies

As a specialist in heating and cooling technology, Heating & Refrigeration Technologies mainly provides sustainable and energy-saving solutions for customers in the food and beverage industry and other key industries, including dairy and oil and gas.

Purchasing, Production and Logistics

GEA bundles purchasing, production and logistics (supply chain) activities in a separate Executive Board function led by the Chief Operating Officer (COO). The strategic and operational purchasing organizations have been globally structured since 2021. Within this structure, GEA's business units and regions carry clear P&L responsibility but are subordinate to central category and performance management.

In addition to the classic cost-cutting targets, the new structure focuses on ensuring the availability of materials and the suppliers' contribution to achieving GEA's sustainability targets. In the area of production, the focus is on optimizing the production network and increasing operational productivity at individual manufacturing plants. Particular focus is placed on factory automation and digitalization as well as the transformation to an agile international manufacturing network with the clear goal of CO_2-neutral production by 2040.

The Global Procurement unit defines and coordinates sustainable targets and initiatives to ensure the high ESG standards are maintained at all points of GEA's supply chain (including reducing GEA's upstream emissions) and prepares the related reports. The Supply Chain unit optimizes customer delivery times and delivery reliability while at the same time reducing logistics costs and material inventories.

Country organizations

Sales to customers and local service activities are unified under the umbrella of a single country organization. The country organizations stand ready to serve their respective customers as a central point of contact, offering them local access to an extensive product portfolio and full range of services. The country organizations cooperate with the divisions in a matrix structure and are assigned to specific regions.

Global Corporate Center

Central management and administrative functions, together with standardized administrative tasks, are bundled within the Global Corporate Center (GCC). The Global Corporate Center performs the principal management functions for the entire GEA Group. GEA makes partially use of Shared Service Centers for the areas of IT, Finance and Human Resources.

Discontinued operations

Discontinued operations comprise the ongoing process of winding down operations discontinued in the past.

Significant changes in the group's Boards

Supervisory Board

At GEA Group Aktiengesellschaft's Annual General Meeting on April 27, 2023, Prof. Dieter Kempf – former President of the Federation of German Industries (BDI), who had been appointed by the court since May 16, 2022 – was elected until the end of the Annual General Meeting that resolves on the formal approval of actions for financial year 2025. The Supervisory Board also re-elected Prof. Dieter Kempf as Chairman.

As of September 1, 2023, Andreas Renschler was appointed to the Supervisory Board by court order. He succeeds Jörg Kampmeyer, who stepped down as a member of the Supervisory Board for personal reasons on August 31, 2023.

Executive Board

The Supervisory Board of GEA Group Aktiengesellschaft appointed Bernd Brinker as CFO with effect from October 16, 2023. For an initial period of one year, he will succeed Marcus A. Ketter, who passed away unexpectedly on August 6, 2023.

Strategy

„Mission 26“: Acceleration of profitable growth through 2026

GEA presented its medium-term strategy until 2026 at the Capital Markets Day in London in September 2021. “Mission 26” is based on seven crucial levers intended to accelerate long-term and profitable growth. The focal points of the strategy include sustainability, innovation & digitalization, new food, and excellence initiatives in the areas of sales, service, as well as purchasing/production. In addition, the company is examining targeted acquisitions.

GEA has set ambitious financial targets as part of Mission 26. These targets are intended to contribute to increasing the company’s enterprise value and focus on growth, profitability, returns and cash flow generation. Average organic revenue growth of 4.0 percent to 6.0 percent per year is targeted, with the intention of achieving revenue of approximately EUR 6 billion in 2026. The EBITDA margin before restructuring expenses is to increase to over 15 percent. The return on capital employed (ROCE) is targeted to reach more than 30 percent*.

In addition, strong free cash flow totaling approximately EUR 2 billion from 2022 to 2026 is expected. This is based on the assumption of increasing profitability combined with a stable ratio of net working capital to revenue within a range of 8 percent to 10 percent, along with disciplined capital expenditures of approximately EUR 200 million annually.

Following the first two years of Mission 26, it is clear that GEA is well on track to achieving these financial targets. In 2022 and 2023, organic revenue growth was over 8 percent in both 2022 and 2023, well above the target range of 4 to 6 percent. At 14.4 percent, the EBITDA margin before restructuring expenses is on course to reach the target of more than 15 percent in 2026. The ROCE target of 30 percent for 2026 has already been exceeded. In 2023, this figure amounted to 33.1 percent*.

At 6.4 percent GEA’s ratio of net working capital to revenue is also better than the target range of 8 to 10 percent. The company generated aggregate free cash flow of EUR 633 million in 2022 and 2023, putting it in a good position to achieve the target of free cash flow of EUR 2 billion in the period 2022 to 2026.

*) at constant exchange rates

GEA intends for its shareholders to participate in this value growth in the form of sustainable dividend increases. In fiscal year 2023, GEA Group Aktiengesellschaft distributed a dividend of EUR 0.95 per share, an increase of 5 cents compared with the previous year. The dividend proposal for 2024 also provides for an increase of 5 cents per share to EUR 1.00.

The seven levers of „Mission 26”:

Sustainability

Closely aligned with its corporate purpose of “Engineering for a better world,” GEA’s sustainability commitment is to develop sustainable solutions responsibly for a better world. As a multi-national company, GEA is willing and able to contribute to creating a better world. Sustainability is an essential component of “Mission 26.” As an important contribution to climate protection, GEA has set itself the goal of reducing its greenhouse gas emissions along the entire value chain to “net zero” by 2040. On the way to net zero, GEA intends to reduce its Scope 1 and 2 greenhouse gas emissions by 60 percent by 2026 and by 80 percent by 2030, compared with the base year 2019. Likewise, Scope 3 greenhouse gas emissions are to be reduced by 27.5 percent by 2030.

There is a specific and ambitious action plan for achieving the net zero target by 2040. This centers on the transformation of internal operating processes and the product portfolio, as well as decarbonization of the supply chain. For example, the company’s own sites are to be supplied with purchased or self-generated renewable power. The environmental footprint of GEA’s customers is also to be reduced through innovative and resource-efficient solutions. Additionally, in the future, GEA requires suppliers to have their own validated climate targets.

Innovation & Digitalization
With its technologies, GEA is very well positioned to benefit from the megatrends-driven growth of its markets. The company also benefits from its long-standing customer relationships. GEA's close customer relationships enable it to continuously improve its products as well as develop new ones.

GEA aims to increase the share of sales of products that are less than five years old from 10 percent in 2021 to 30 percent by 2026. In order to achieve this objective, the company plans to increase its Research & Development spending by approximately 45 percent in the period from 2022 to 2026. In addition to introducing new products, GEA increasingly offers its customers digital solutions that enable them to use their own processes and GEA equipment even more efficiently.

New Food
The worldwide new food trend is opening up market opportunities for GEA. New food comprises resource friendly produced food, such as plant-based milk and meat alternatives. The product range also includes in-vitro meat and precision fermented proteins, as well as high quality food ingredients. Within this dynamically growing market, GEA intends to expand its already strong market position and become a market leader. GEA is ideally positioned to benefit more than most from this trend thanks to its strengths in scaling industrial applications and its position as a full-range supplier.

In the new food segment, GEA achieved an order intake of EUR 78 million in fiscal year 2023, after EUR 48 million in the previous year. GEA expects order intake in the New Food segment to increase by EUR 400 million per year in 2026.

Excellence initiatives in sales, service, and purchasing/production
Sales, service, procurement, and production all offer opportunities for growth within the scope of "Mission 26." Sales effectiveness and presence will be better leveraged on both a regional and country basis by deploying more own sales staff in key markets. This should result in average organic revenue growth of 4 to 5 percent annually from new machinery from 2022 to 2026.

In the steadily growing and profitable service business, revenue should be increasingly generated by previously installed machinery, plant, and equipment by 2026. Furthermore, the service business is to be evolved from an incident-driven to a regularly recurring business model, including through the increased use of service level agreements. This aim is to generate average organic service revenue growth of 5 to 6 percent in the period 2022 to 2026.

GEA will continue to implement previously initiated optimization measures in purchasing, production, and logistics. By 2026, the objective is to enable a transition to best-in-class procurement, to further optimize the production network and reduce customer delivery times. From 2022 to 2026, additional optimization measures in purchasing (EUR 90 million) and production (EUR 60 million) are expected to result in a total net contribution to EBITDA of EUR 150 million.

Acquisitions
The strong cash flow and a solid balance sheet will enable GEA to grow externally. Appropriate acquisitions are being examined with the objective of enhancing the portfolio. A suitable acquisition must be a good fit for GEA strategically, organizationally, and financially.

Capital expenditure

GEA develops and engineers specialized components, largely on a made-to-order basis, designs process solutions and is active in the project business in a broad range of industries. The focus is on the food, beverage and pharmaceutical industries. With its global engineering and production network, the group is able to provide customers with solutions that are tailored to their individual requirements. Customers should also benefit from GEA's flexible production concepts, which should ensure fast throughput, low costs, and minimize tied-up capital.

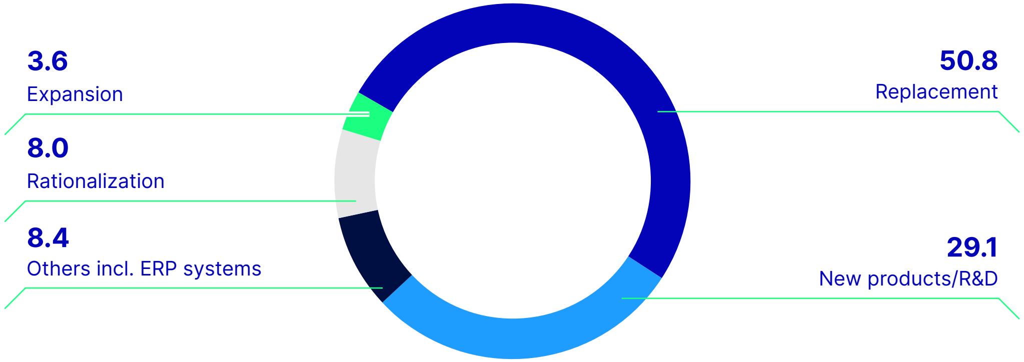
Capital expenditure (payments for property, plant and equipment and intangible assets) increased by 12.1 percent in fiscal year 2023 to EUR 228.4 million (previous year: EUR 203.8 million). This corresponds to 4.2 percent of revenue (previous year: 3.9 percent).

All divisions reported a year-on-year increase in capital expenditure. The Separation & Flow Technologies division accounted for the largest share of capital expenditure (around 35 percent). The most significant increase was attributable to the Food & Healthcare Technologies division (from EUR 45.6 million to EUR 65.2 million). This increase was largely due to higher replacement investments and investments in new products/R&D. Lower increases were recorded by Separation & Flow Technologies (from EUR 76.8 million to EUR 79.5 million), Liquid & Powder Technologies (from EUR 23.2 million to EUR 25.5 million), Farm Technologies (from EUR 22.7 million to EUR 25.0 million) and Heating & Refrigeration Technologies (from EUR 8.1 million to EUR 13.4 million).

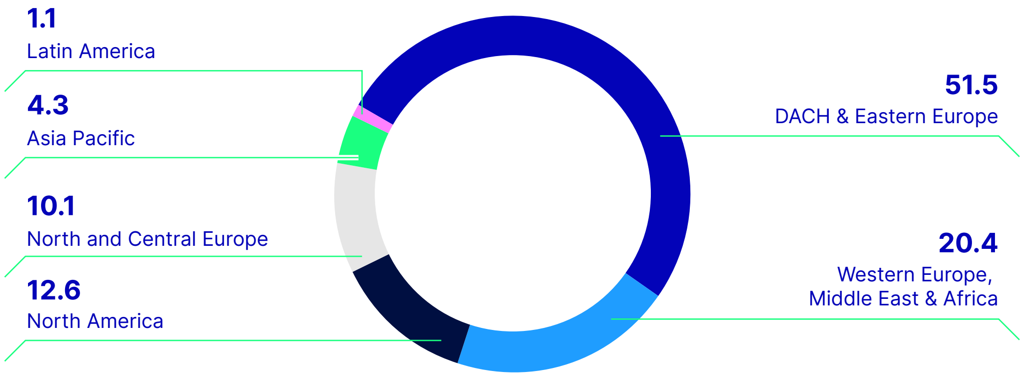
The largest share of capital expenditure was directed towards replacement investments (around 50.8 percent). Investments in research and development as well as new products accounted for roughly 29.1 percent. The third-largest spending block of some 8.4 percent represented other investments, including ERP systems.

In terms of capital expenditure by region, the focus was on the DACH & the Eastern Europe region (around 51.5 percent). This was followed by the region Western Europe, Middle East & Africa with around 20.4 percent and North America with around 12.6 percent. The Latin America and Asia Pacific regions each accounted for less than 10 percent of capital expenditure.

Capital expenditure in tangible and intangible assets per type
(in %)



Capital expenditure in tangible and intangible assets by region
(in %)



Management system

Basis of information

Group reports are prepared with the aid of standard applications that are precisely tailored to the needs of GEA and are continuously evolving. Standard reports prepared on the basis of unified data are used throughout the group to report net assets, financial position, and results of operations. These standard reports are supplemented by special analyses as well as analyses and reports related to specific businesses and strategic measures. Besides the budget for fiscal year 2024, the current corporate planning covers two further planning years.

In fiscal year 2023, regular reporting procedures were supplemented by committee meetings of the group's management with an opportunity to share information on strategic and operational issues. In addition, the Executive Board of GEA Group Aktiengesellschaft met once a month. Furthermore, the extended management board – the Global Executive Committee (GEC) – which comprises the Executive Board members, the CEOs of the divisions and sales regions, as well as the head of Human Resources and the Head of Sustainability, met to assist the Executive Board with decision preparation. The Executive Board meetings concentrated on issues of relevance to the group as a whole, whereas significant matters directly affecting the divisions and regions were discussed at the GEC meetings. In addition, the individual divisions regularly held meetings, which were attended by the management of the divisions as well as the extended management teams of the divisions. Such meetings entailed detailed discussions of the net assets, financial position, results of operations as well as business development of the division concerned. Separate meetings for each division were also held to discuss earnings for the latest fiscal year and the business plan for the following years.

Key performance indicators

Key performance indicators in the management system in 2023

GEA's prime objective is to realize continuous growth in enterprise value. Trends in key indicators are, therefore, defining factors and an essential basis for the company's lasting success.

In fiscal year 2023, the key financial performance indicators for GEA were:

- Revenue (organic revenue growth)
- EBITDA before restructuring expenses
- Return on Capital Employed (ROCE)

Revenue (organic revenue growth)

By organic revenue growth, GEA means year-on-year changes in revenue that are adjusted for currency and portfolio effects. By contrast, reported revenue includes both organic growth as well as effects due to currency translation and disposals/acquisitions.

EBITDA before restructuring expenses

GEA uses EBITDA (earnings before interest, taxes, depreciation and amortization, impairment losses and reversals of impairment losses)* as a key earnings indicator. EBITDA is adjusted to take into account the effect of restructuring expenses. The restructuring measures to be taken are outlined in terms of content, scope and definition, presented to the Chairman of the Supervisory Board by the CEO and jointly finalized. Only measures with an EBITDA effect exceeding EUR 2 million are taken into account. Accordingly, this indicator is termed "EBITDA before restructuring expenses." Moreover, if the respective process requires approval in accordance with the Rules of Procedure of the Executive Board, it must be approved by the Supervisory Board as well.

*) This includes impairment losses and reversals of impairment losses on property, plant and equipment, intangible assets and long-term financial assets, as well as impairment losses in connection with the classification as "held for sale" (no change in content compared with the previous year).

Return on Capital Employed (ROCE)

The performance indicators "revenue" and "EBITDA before restructuring expenses" are supplemented by another accounting ratio, namely "return on capital employed" (ROCE). The ROCE corresponds to the ratio of earnings before interest, taxes and restructuring expenses (EBIT before restructuring expenses) to the capital employed.

Capital employed includes non-current assets less interest-bearing non-current assets and working capital plus other non-interest-bearing assets, liabilities and provisions less assets and liabilities in connection with income taxes (all items calculated as averages for the past four quarters). When calculating capital employed, the effects arising from the acquisition of the former GEA AG by the former Metallgesellschaft AG in 1999 and further effects from discontinued operations are not taken into account.

In order to anchor ROCE even more strongly at an operational level, the ROCE driver "EBIT before restructuring expenses" is evaluated on a continuous basis. The same applies to "working capital" or the "ratio of working capital to revenue," which is the key driver of capital employed.

As a strategic indicator, the ROCE measures the relative profitability of a company when compared with the weighted average cost of capital (WACC). If the ROCE is above the WACC, this is an indication that the business is generating value as the expectations of the capital market have demonstrably been exceeded.

The difference between the expected ROCE and the WACC is a key criterion for investment and portfolio decisions. The group calculates WACC on the basis of specific peer-group information on beta factors, data on capital structure and borrowing costs.

Other indicators in the management system in 2023

GEA also routinely gathers various other performance indicators in order to obtain a meaningful picture of the overall situation.

To enable a rapid response to developments, the divisions provide regular forecasts – for the quarters and for the year as a whole – on the key performance indicators of revenue, EBITDA before restructuring expenses and ROCE. Additionally, GEA makes estimates for other indicators, such as order intake as an early indicator for revenue, and publishes them together with divisional forecasts.

Non-financial key performance indicators

Alongside the financial key performance indicators (KPIs), GEA uses a suite of non-financial KPIs for management purposes. Examples of these include greenhouse gas emissions and the accident frequency rate. The non-financial KPIs and targets are presented in detail in the separately published Sustainability Report* 2023.

Management of capital employed

Resources are allocated within the group primarily on the basis of strategic and medium-term planning. This provides the framework for preparing key decisions on core technologies, sales markets and other strategically important variables.

Acquisitions and expansion investments are assessed not only on the basis of key performance indicators showing potential returns but also in terms of their contribution towards achieving the group's strategic goals. The key economic criterion for evaluating rationalization and expansion investments is the net present value. The amortization period is also calculated as an additional benchmark for assessing the risk arising from changing economic conditions.

Working capital is another key element of capital employed. Working capital management begins before an order is accepted with the payment terms that are offered or negotiated.

*) The GEA Sustainability Report is published as a stand-alone report – in addition to this Annual Report – and is not subject to the statutory audit.

Project- and activity-based management

In addition to general management with the aid of the key performance indicators described above, GEA has introduced individual assessment and approval procedures for customer and investment projects, utilizing specific thresholds for the different hierarchy levels.

Customer projects are evaluated primarily on the basis of their expected gross margin and on a full-cost basis. Their technical, commercial and contractual risk profile, with a particular emphasis on cash flow, is also identified.

Project management is also backed up by extensive project control not only at the operating unit level but also – depending on the size of the project involved – at the division or group level in the form of a separate reporting system for large projects. In many cases, the findings from this analysis generate ideas for improving internal processes, which can be used in subsequent projects. At group level, the analysis focuses on deviations between the calculated and the expected or realized contract results.

Key performance indicators in the management system in 2024

The performance indicators revenue (organic growth) and ROCE in the management system for 2024 remain unchanged from the 2023 definition. In terms of earnings, GEA is switching from an absolute performance indicator to a relative one - the EBITDA margin before restructuring expenses - in order to achieve an even stronger link with the „Mission 26" targets. Management on the basis of the EBITDA margin before restructuring expenses supports the even stronger focus on profitability in the future.

Research and development

- 2.5 percent of revenue invested in R&D (total R&D ratio: 2.7 percent)
- 3.0 percent of revenue to be invested in R&D by 2026
- 73 new products released
- 79 new patent families filed

GEA's "Mission 26" strategy, which sets out the path for the company's long-term and profitable growth, bundles all of its research and development (R&D) activities under the umbrella of "Innovation and Digitalization." The "Innovation and Digitalization" area is subdivided into four key growth drivers reflecting GEA's key development areas:

Environmental Sustainability	New Food	Digital Solutions	Modularization & Configuration




Innovations are generally developed by subject-area experts at GEA's technology centers in detailed consultation with customers. Various tools and methods, including customer interviews, customer workshops and on-site technology testing in the form of prototypes, are used for this purpose. Developing products in close collaboration with customers shall ensure the subsequent application of GEA products as well as the continual improvement and expansion of the existing product portfolio. GEA also encourages a cross-divisional exchange of knowledge between its technology sites and sets group-wide standards.

The consistent focus on research and development is already contributing to profitable growth. In the year under review, products developed in the last five years already accounted for about 15 percent of total group revenue. Thus, GEA is ahead of its own expectations to increase this share to 30 percent by 2026 as part of "Mission 26."

Environmental sustainability

"Engineering for a better world" – part of this commitment involves that GEA wants to enable its customers to act more sustainably and protect the environment through the products and services it provides. GEA's contribution to resource sustainability therefore already begins at the development stage. In fiscal year 2023, GEA spent EUR 15.5 million (previous year EUR 12.7 million) on research and development in this area, which corresponds to 9.2 percent of its total R&D expenditure. Sustainability innovations took center stage in 2023, highlighting the following key focal points:

- Driving forward sustainable innovation with the "AddBetter" label
- Promoting radical innovation through Sustainathons (Sustainability Hackathon workshops)
- Updating the product development process to take account of sustainability aspects.

The developments in relation to both existing and new products primarily aim to reduce energy consumption and the greenhouse gas emissions they cause, reduce water consumption, and support the circular economy. To succeed in this transition, GEA has set sustainability targets for its product development. These are described in more detail in the "Non-financial group statement" in the section "Sustainable products and services."

New Food

New Food embraces the basic principle and goal of feeding more people using fewer resources. As a category, the primary focus is protein-rich foods and components and other nutritious compounds, produced through traditional processing methods, precision fermentation or tissue engineering, or a combination of these methods.

- Plant-based: novel derived functional ingredients (e.g., proteins, fatty acids, enzymes) with novel benefits, textures or flavors or plant-based foods, beverages and components that replace animal-based products
- Precision fermentation: food or intermediate products through the propagation of microorganisms, fungi, or aquatic plants such as microalgae or algae for the targeted production of raw materials
- Cell-based applications: cultured cell cultures from mammals, birds, crustaceans, or fish cells by multiplying the cells to produce food, beverages or alternative intermediates to animal and plant products, such as cultured meat, fish, milk, etc.
- Insect- or crustacean-based foods and ingredients

In summer 2023, the new “New Food Application and Technology Center of Excellence (ATC)” was inaugurated in Hildesheim, Germany. The ATC includes a pilot-scale cell cultivation and fermentation facility to help customer companies rapidly test innovations from the lab to full-scale production. The new test platform at the ATC bridges the gap between the test bench and industrial scale while avoiding large investments.

GEA has also developed a digital twin to predict an optimal bioreactor design. The aim is to estimate unknown process values of the cells, which differ significantly between a laboratory plant and a mass production plant.

Digital solutions

Digitalization also poses major challenges for food technology but offers those who use and shape it the opportunity to strengthen customer loyalty through digital services and explore new sales channels. With its own digital solutions, GEA is pursuing the goal of increasing the availability and productivity of machines and systems and improving the sustainability of customers’ production. The importance of the digital sales channel for GEA today is illustrated by the approximately EUR 650 million in e-commerce revenue generated in the past fiscal year. For the Farm Technologies Division, which benefits most from this, this means an eCommerce usage rate of over 80 percent of all customer orders.

In 2023, GEA successfully launched over 10 new digital solutions in all divisions. These range from cloud-based software solutions for farms (DairyNet) to the digital transparency of process lines in the food sector (Insight Partner Food), condition monitoring for predictive maintenance and failure prediction and fully automated process control using AI - artificial intelligence (Optipartner). A particular focus of innovation activities in the digital area was on the development of solutions that contribute to sustainable production for customers. These solutions are certified with GEA “Add Better Solution” by TÜV Rheinland. These include:

- GEA Cloud® reference architecture, which makes it possible to securely connect plant and machinery using modern edge AI and certified IIoT (Industrial Internet of Things) security standards
- Provision of cutting-edge data analytics and cloud-based AI for effective predictions and recommendations
- GEA Portal – a central GEA customer portal associated with a GEA ID, which guarantees secure access to all data and services.

Modularization and configuration

As a machinery and equipment manufacturer, a large proportion of GEA's engineering services are customer-specific and result in customized solutions. The stringent modularization and configuration of GEA's products are intended to make tendering and sales processes, as well as production and order processing, faster and more efficient. As a result, higher order volumes can be handled.

To achieve this, products are broken down into individual standardized modules that can be used repeatedly in different projects. This modularization considerably should noticeably reduce complexity in the delivery of services. At the same time, GEA wants to continue to meet customer demand for customized solutions. Through a combination of different interchangeable modules (also referred to as "configure-to-order"), customers can generate and order product variants tailored to their needs using digital configuration tools – similar to those used when ordering a new car – and an application-optimized sales management process. In past years, selected pilot projects at GEA have shown that appropriate configure-to-order solutions can also be used for the sale of highly complex products and systems, making it possible to more efficiently structure order processing overall. Examples of these projects include the introduction of the SAP CPQ sales tool at BU Homogenizer and BU Separation, as well as the TACTON Design Automation technical configuration solution at BU Powder and BU Food Application Solutions. In 2023, the initiative focused on creating the basis for the concepts to be rolled out across GEA within the framework of the global SAP program by defining standard processes for the configure-to-order business, as well as implementing them in the global SAP template. In a global process community, a total of 12 main processes were defined, harmonized, and transferred to the global template. In addition, more than 250 user stories relating to configuration were compiled; 52 of these were transferred to the global SAP template.

New products: Examples
The following examples* give an insight into GEA's innovation activities in 2023.

GEA Smart Filtration – Reducing energy and water consumption for cleaning systems by up to 50 percent

Membrane filtration systems separate or concentrate substances without thermal stress. Membrane filtration is primarily used in food manufacturing, dairy processing, and the new food industry. Until now, cleaning this equipment was energy- and water-intensive, requiring different chemical cleaning agents to be pumped and circulated throughout the equipment for a specified amount of time before rinsing it out with water.

Two solutions have been developed in the Liquid & Powder Technologies Division: "GEA Smart Filtration Flush" uses sensors that constantly measure the permeate quality of the water during flushing. As soon as the specified hygiene level is reached, the software stops the CIP process (CIP: Cleaning-In-Place) earlier and avoids further freshwater consumption and wastewater generation. The second solution, "GEA Smart Filtration CIP", works with pulsating pumps and avoids continuous operation of the rinsing pumps. The best cleaning is achieved by maximizing the pressure drop across the membranes. The successively switched on and off pump enables excellent cleaning results with reduced energy consumption. In 2023, the "GEA Smart Filtration CIP" solution was certified with the AddBetter label.

Benefits:
Depending on the system type, size and water properties, GEA customers can reduce their energy requirements by up to 50 percent and also their water requirements with "GEA Smart Filtration Flush". It can also reduce the capacity of fresh water and wastewater pipes. With "GEA Smart Filtration CIP", large filtration systems require 60 to 100 kilowatt hours less electrical energy.

*) The following examples relate to disclosures that are not part of the combined management report and are not the subject of the statutory audit.

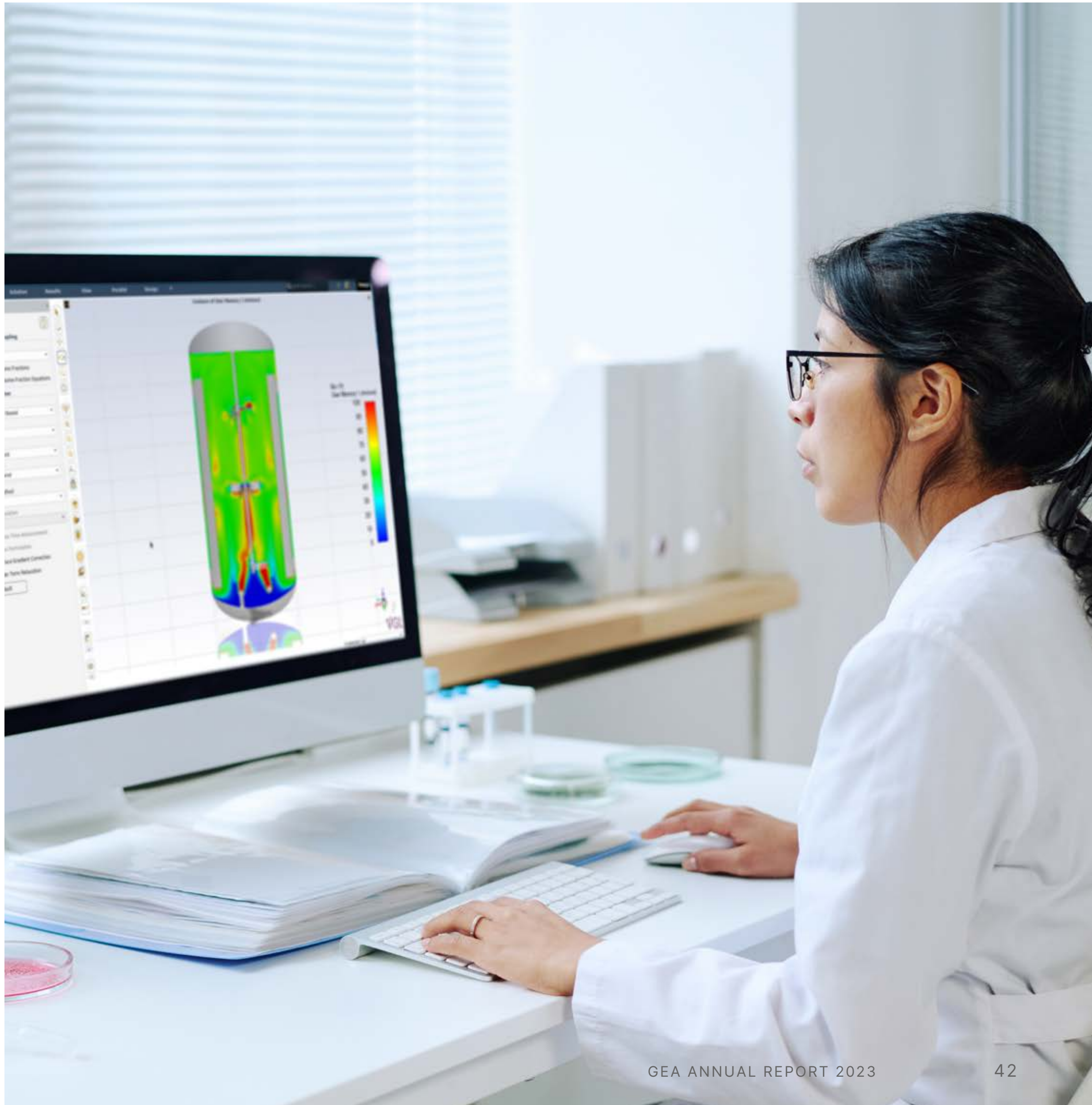
Digital twin for bioreactor development

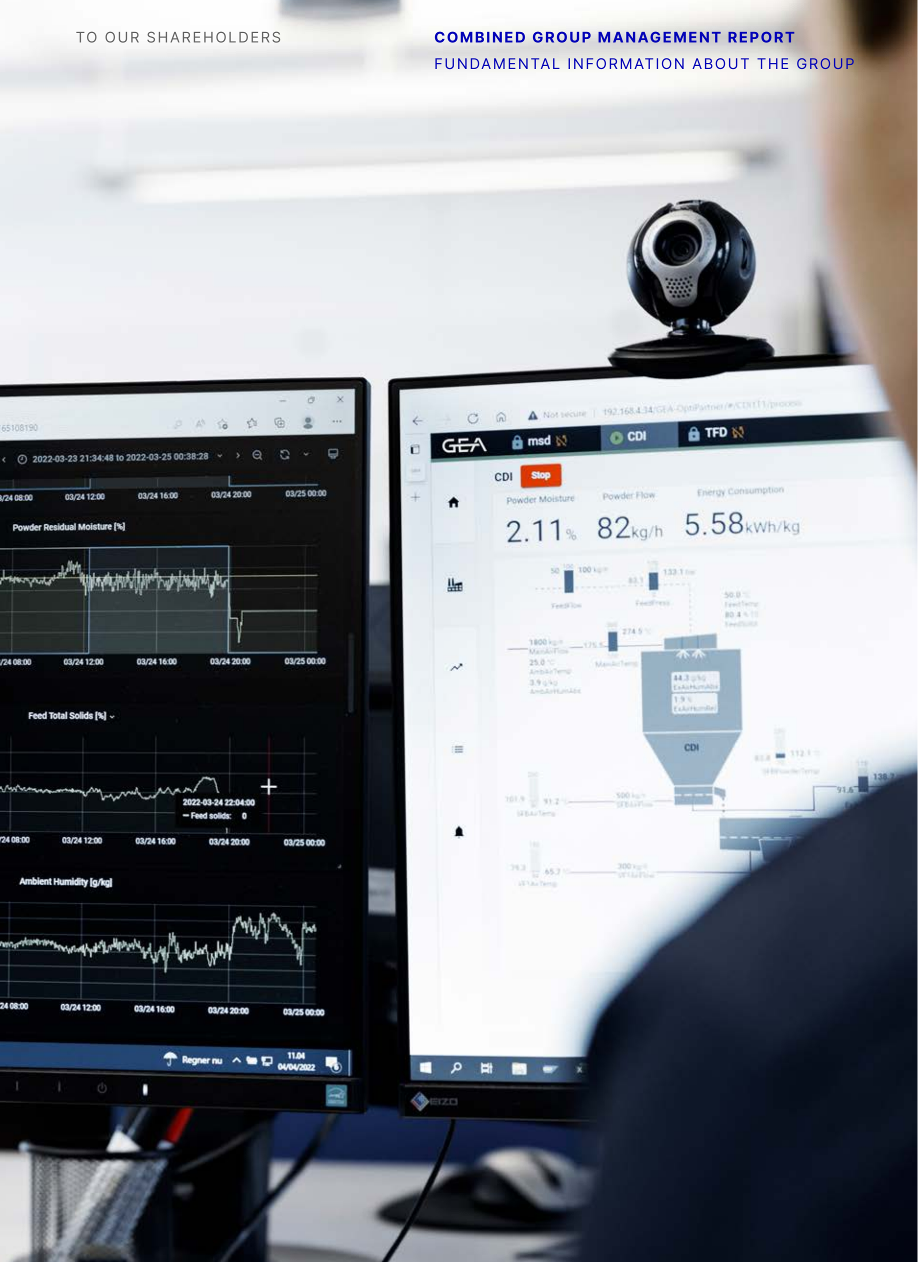
Bioreactors are a key technology for the new food industry. A bioreactor is a vessel that has to function like a living body. Inside the reactor, life develops under highly complex conditions. Working on an industrial scale, living organisms need to be made predictable because reliable and replicable performance coupled with maximum productivity are essential. Validation of bioreactors using a digital twin is a key step in ensuring optimal growth conditions as well as enabling new food processes to be successfully scaled.

Boosting yields in a reactor tank is not as simple as stirring more quickly, as this can lead to greater shear stresses, potentially causing cell damage in the product. Furthermore, uneven distribution of oxygen in the bioreactor is detrimental to controlled cell growth. Experts estimate that, when scaling up bioreactors, uneven distribution of oxygen and nutrients inside the tank could lead to performance losses of up to 30 percent.

This risk is averted by means of virtual bioreactor testing based on computational fluid dynamics (CFD) and by calculating kinetic models, both of which are powerful product development tools. To further improve its approach, GEA utilizes physical test rigs to optimize the performance of large-scale bioreactors in the conceptual stage. Digital twins also simplify the assessment of product properties that would otherwise be difficult or costly to measure.

Benefits:
The use of a digital twin in new food bioreactors can be expected to shorten the development time for plant scaling and reduce the risk of lower product quality. Furthermore, the digital twin can be used to optimize process recipes and parameters during subsequent operation.





GEA OptiPartner – optimum performance for spray drying

GEA OptiPartner is a digital advanced process control (APC) solution. It assists operators in continuously raising the productivity and efficiency of their spray drying systems. The system is designed to reduce fluctuations so that systems can work closer to their limits. GEA OptiPartner functions like a digital autopilot which ensures that production remains consistently stable around the clock. The solution is based on the system's existing control system and is therefore particularly suitable for improving systems already in place.

The software is offered as a subscription service and includes maintenance and process performance monitoring with no up-front costs for operators. When used in the dairy industry, the solution provided a significant increase in system availability (98 percent), improved the production rate by approximately 4 percent, and reduced energy consumption by over 4 percent.

GEA OptiPartner is currently available for powder systems used to produce milk, food ingredients and instant coffee. The solution was certified with the AddBetter label in 2023.

Benefits:
Features and potential benefits of GEA OptiPartner include: a single platform capable of optimizing multiple key parameters; reduced system downtime; resource and energy savings; real-time monitoring and adjustment; no investment needed as it is offered as a service; full process transparency; simple, user-friendly interface.

New GEA breading technology reduces dust with minimal crumb breakdown

The GEA CrumbMaster Gen 2 (second generation) is a fully enclosed, dedicated machine for producing crumbs and coatings for meat, poultry, fish, and seafood. The result is a crumb coating machine that is suitable for a wide range of dry ingredients. Different types of crumbs, including standard and premium varieties, fragile coatings and special varieties that pose an array of challenges can be produced to the highest quality.

The hygienic design meets the most stringent global hygiene standards. Features such as fold-away panels, self-draining surfaces, stainless steel drives and motors, sealed bearings and food-safe plastics ensure easy access, minimal downtime, simple operation, minimal cross-contamination, and low water consumption.

Products can be switched quickly with tool-less exterior adjustment, the top and bottom crumb coating can be set separately, and the machine height can be easily adjusted for simple line integration. The system is available with a belt width of 400 mm, 600 mm and 1,000 mm, and can operate at speeds of up to 30 m/minute – 20 percent faster than its three predecessor models.

Benefits:
The fully enclosed design reduces dust by up to 90 percent for a much cleaner working environment and less down-stream contamination. The GEA CrumbMaster Gen 2 is also compatible with GEA OptiAir, which extracts flour dust from the atmosphere during the breading process, making it particularly suitable for dust-critical applications.

Patents

In fiscal year 2023, GEA filed applications for a total of 79 (previous year: 67) new patent families as a result of its research and development activities. Overall, GEA holds around 1,000 patent families comprising approximately 5,500 individual patents. These cover all of GEA's key technologies and processes and relate to separation, drying, homogenization, crystallization, granulation, purification, cooling, freezing, dairy processing, filling, and packaging.

R&D Key Performance Indicators

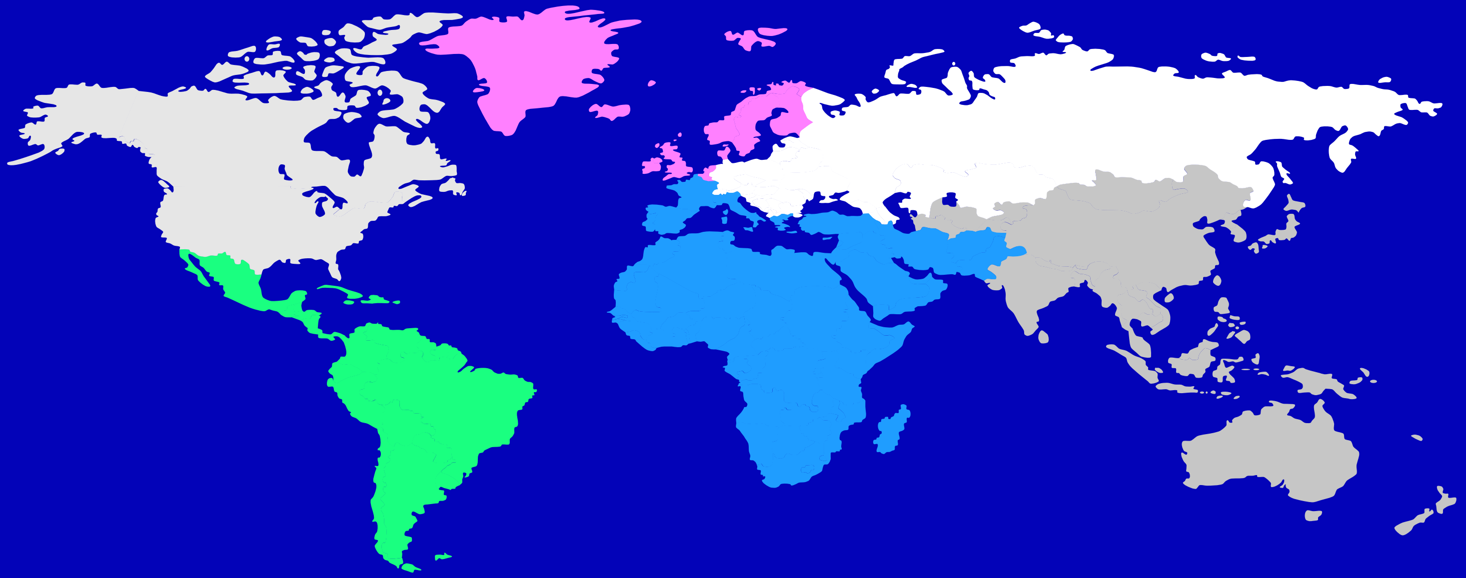
At EUR 132.7 million, expenses for proprietary R&D for GEA's own purposes in fiscal year 2023 were 11.0 percent higher than in the previous year. This figure includes the depreciation of capitalized development costs in the amount of EUR 19.7 million (previous year: EUR 21.3 million) that are recognized under the cost of sales. Furthermore, in the year under review, third party contract costs for R&D totaled EUR 13.6 million (previous year: EUR 12.5 million), which is recognized under the cost of sales. At 2.5 percent, the ratio of R&D for GEA's own purposes to sales was slightly higher than in the previous year (2.3 percent). The R&D ratio including third party contract costs, at 2.7 percent was slightly higher than in the previous year at 2.6 percent.

Capitalized development expenses in the year under review came in at EUR 54.8 million (previous year: EUR 42.4 million). Including depreciation of capitalized development costs, R&D expenses for GEA's own purposes amounted to EUR 167.8 million (previous year: EUR 140.6 million). R&D expenditure as a percentage of revenue went up to 3.1 percent in fiscal year 2023 (previous year: 2.7 percent).

Research and development (R&D) for GEA's own purposes (EUR million)	2023	2022	Change in %
Depreciation of capitalized development expenses (Cost of Sales)	19.7	21.3	-7.5
Research and development expenses	113.0	98.3	15.0
R&D expenses for GEA's own purposes	**132.7**	**119.6**	**11.0**
R&D ratio (as % of revenue)	**2.5**	**2.3**	**–**
Capitalized development expenses	54.8	42.4	29.3
Depreciation of capitalized development expenses	-19.7	-21.3	-7.5
R&D expenditure	**167.8**	**140.6**	**19.3**
R&D ratio (as % of revenue)	**3.1**	**2.7**	**–**

Research and development (R&D) - total (EUR million)	2023	2022	Change in %
R&D expenses for GEA's own purposes	132.7	119.6	11.0
R&D expenses on behalf of third parties (Cost of Sales)	13.6	12.5	8.8
R&D expenses - total	**146.3**	**132.1**	**10.8**
R&D ratio - total (as % of revenue)	**2.7**	**2.6**	**–**

REPORT ON ECONOMIC POSITION



North America
1,161 EUR million
1,776

Latin America
382 EUR million
725

Western Europe, Middle East & Africa
831 EUR million
2,653

North and Central Europe
782 EUR million
3,310

DACH & Eastern Europe
1,019 EUR million
7,258

Asia Pacific
1,198 EUR million
3,051

= Revenue = Employees (FTEs)

Overall Assessment of Business Development in 2023

GEA started the 2023 fiscal year with an excellent first quarter with order intake at a record high. The key performance indicators organic revenue growth, EBITDA before restructuring expenses and ROCE improved significantly compared to the previous year. Due to the very good first quarter developments, GEA was able to raise its outlook for the 2023 fiscal year. GEA continued to perform well in the second quarter of the year and further improved its financial key figures. The rest of the year was dominated by rising interest rates, unfavorable exchange rate developments and geopolitical uncertainty. Despite this, GEA also performed well in the second half of 2023 and demonstrated its financial resilience.

Order intake declined by 3.7 percent to EUR 5,469 million in the year under review. By contrast, organic growth (growth adjusted for portfolio and currency translation effects) achieved a slight increase by 0.8 percent. Negative currency translation effects for the year as a whole totaled EUR 221 million. Disaggregated by industry, revenues from customers in the beverage and new food sectors showed year-on-year growth, while revenues from customers in all other industries experienced a decline. Overall, GEA secured 13 large orders (volume >EUR 15 million) with a total value of EUR 386 million during the year under review, mainly from customers in the beverage, new food, dairy and chemical industries.

GEA achieved a 4.0 percent increase in revenue to EUR 5,373 million. A significant increase of 8.4 percent was achieved on an organic basis. Currency translation effects had a negative impact of EUR 190 million on revenue. All divisions contributed to the organic growth, with some recording double-digit growth rates. Regional development was also pleasing. Almost every region saw an improvement in revenue, with only the Asia Pacific region showing a slight decline compared to the previous year. Revenue developed positively on the customer side in almost all customer industries,with only revenues from customers in the new food and pharma industries experiencing a decline compared to the previous year. The share of service revenue continued to rise to 36.1 percent, compared to 34.9 percent in the previous year.

EBITDA before restructuring expenses increased by 8.7 percent to EUR 774.3 million. The corresponding EBITDA margin increased by 0.6 percentage points to 14.4 percent (previous year: 13.8 percent). Almost all divisions – with the exception of Food & Healthcare Technologies – contributed to this improvement and increased their EBITDA before restructuring expenses.

The profit for fiscal year 2023 came to EUR 392.8 million, which was lower than the previous year's figure of EUR 401.4 million. Reasons for this were a drop in profit after tax from discontinued operations due to lower market interest rates for discontinuing long-term mining obligations and higher income tax expenses. Earnings per share of EUR 2.28 were in line with the previous year. Earnings per share before restructuring expenses were EUR 2.56 compared to EUR 2.58 in the previous year.

As part of the new share buyback program launched in November 2023 (volume of up to EUR 400 million), a total of 1,451,583 million shares were acquired by the end of December.

Net liquidity rose from EUR 346.4 million in the previous year to EUR 371.2 million. Net working capital as a percentage of revenue came to 6.4 percent compared to 6.1 percent in the previous year and thus was still better than the target corridor of 8 to 10 percent.

Capital employed as an average of the last four quarters increased by EUR 110 million to EUR 1,776 million as of December 31, 2023, mainly due to higher fixed assets and increased net working capital. At the same time, EBIT before restructuring expenses registered a significant increase of 9.7 percent, rising from EUR 529.1 million to EUR 580.6 million, resulting in additional improvement in return on capital employed (ROCE) from 31.8 percent to 32.7 percent.

In summary, GEA can look back on another successful fiscal year despite the adverse geopolitical and economic situation. The financial results attest strength and resilience, even in challenging times. In what continues to be an extremely challenging environment, GEA succeeded in further unlocking its potential and achieving the guidance, which was raised during the 2023 fiscal year.

Comparison of forecasts and actual performance

The outlook for fiscal year 2023 was based on the assumption that the global economy would grow, albeit at a slower pace than before. It also called for energy, commodity, material, and personnel costs to remain at a relatively high level. The original organic sales growth forecast (adjusted for currency and portfolio effects) anticipated more than 5 percent growth, and the expectations for EBITDA before restructuring expenses (at constant exchange rates) were between EUR 730 million and EUR 790 million. For return on capital employed (ROCE) a minimum level of 29 percent at constant exchange rates was guided.

The outlook for 2023 was upgraded in the first quarterly statement on May 5, 2023 due to the exceptional operating performance over the first three months of the fiscal year. Organic revenue growth forecasts were raised to over 8 percent accordingly. Likewise, the guidance range for EBITDA before restructuring expenses was raised to the upper part of the range of EUR 730 million to EUR 790 million, while the expected ROCE was adjusted to over 32 percent (both at constant exchange rates). This outlook was confirmed multiple times over the course of the fiscal year.

At 8.4 percent, organic revenue growth for fiscal year 2023 exceeded the forecast of more than 8 percent. EBITDA before restructuring expenses of EUR 800 million at constant exchange rates (EUR 774 million reported), was slightly above the expected range of EUR 730 to 790 million. With ROCE of 33.1 percent at constant exchange rates (32.7 percent reported), the expectation of more than 32 percent was also achieved.

Forecast fiscal year 2023	Forecast for 2023 according to Annual Report 2022	New Forecast according to Q1 Quarterly Report 2023	2023 reported	2023 at constant exchange rates
Revenue development (organic)	> 5% (significantly rising)	>8% (significantly rising)	4.0%	8.4%
EBITDA before restructuring expenses (at constant exchange rates)	EUR 730 – 790 million	Upper part of the range of EUR 730 - 790 million	EUR 774 million	EUR 800 million
ROCE (at constant exchange rates)	at least 29.0%	more than 32.0%	32.7%	33.1%

The following tables show the outlook for the individual divisions and the respective target achievement:

Revenue development (organic)*	Forecast for 2023 according to Annual Report 2022	New Forecast for 2023 according to Q3 Quarterly Report	2023 reported	2023 organic
Separation & Flow Technologies	significantly rising	significantly rising	6.8%	11.5%
Liquid & Powder Technologies	significantly rising	slightly rising	0.5%	3.7%
Food & Healthcare Technologies	slightly rising	significantly rising	2.8%	4.2%
Farm Technologies	slightly rising	significantly rising	5.7%	11.9%
Heating & Refrigeration Technologies	significantly rising	significantly rising	6.2%	14.8%
Consolidation	–	–	–	–

*) For revenue, “slight” indicates a change of up to +/- 5%, while a change of more than +/- 5% is referred to as “significant.”

EBITDA before restructuring expenses (at constant exchange rates)*	Forecast for 2023 according to Annual Report 2022	New Forecast for 2023 according to Q3 Quarterly Report	2023 reported	2023 at constant exchange rates
Separation & Flow Technologies	slightly rising	slightly rising	9.9%	13.9%
Liquid & Powder Technologies	significantly rising	slightly rising	7.4%	10.8%
Food & Healthcare Technologies	significantly rising	significantly declining	-26.9%	-26.2%
Farm Technologies	significantly rising	significantly rising	27.3%	32.6%
Heating & Refrigeration Technologies	significantly rising	significantly rising	15.8%	16.9%
Others	significantly declining	slightly declining	19.1%	19.0%
Consolidation	–	–	–	–

*) For result variables, “slight” corresponds to a change of up to +/- 10%, while changes of +/- 10% or more are referred to as “significant.”

ROCE (3rd party, at constant exchange rates) [1]	Forecast for 2023 according to Annual Report 2022	New Forecast for 2023 according to Q3 Quarterly Report	2023 reported	2023 at constant exchange rates
Separation & Flow Technologies	significantly declining	slightly rising	0.7% p.	0.9% p.
Liquid & Powder Technologies[2]	–	–	–	–
Food & Healthcare Technologies	slightly rising	slightly declining	-8.5% p.	-8.4% p.
Farm Technologies	slightly rising	significantly rising	8.8% p.	8.6% p.
Heating & Refrigeration Technologies	significantly rising	significantly rising	13.7% p.	12.5% p.

1) For ROCE, “slight” corresponds to a change of up to +/- 3 percentage points, while changes from +/- 3 percentage points are described as “significant.”
2) ROCE for 2023 is not meaningful due to the negative capital employed.

Macroeconomic environment

As a global technology company, GEA considers growth in global gross domestic product (GDP) to be a key reference point for its own growth path. The International Monetary Fund’s (IMF) assessments also serve as a benchmark in this regard.

The global economy continued to face serious headwinds in fiscal year 2023. Even though it continued to slowly recover from the negative shocks of recent years triggered by the COVID-19 pandemic and the massive price increases for commodities driven by the war in Ukraine, the markets remained extremely uncertain. The global economy was dampened by the ongoing war in Ukraine and new geopolitical conflicts such as in Israel, in addition to high rates of inflation and rising interest rates caused by the monetary policies of central banks. Despite these factors, the IMF slightly revised its forecast upwards over the course of 2023. In its January 2023 forecast, the IMF expected the global economy to grow by 2.9 percent in 2023. It then changed its growth forecast to 3.0 percent halfway through the year. According to its January 2024 update, the IMF now expects global growth of 3.1 percent in 2023, with industrialized countries forecast to grow by just 1.6 percent. In contrast, emerging markets and developing countries are expected to grow by 4.1 percent. The US economy is projected to grow by 2.5 percent, the highest rate of any industrialized country. Germany’s GDP is expected to fall by 0.3 percent. The IMF is forecasting growth of 0.5 percent for the euro area in 2023. According to the IMF’s calculations, India is expected to see the highest rate of growth among developing and emerging countries at 6.7 percent. The Chinese economy is projected to grow by 5.2 percent.

Figures published by the German Mechanical Engineering Industry Association (VDMA) provide an insight into the current situation in the German mechanical and plant engineering sector. These figures indicate that the general global uncertainty has left clear marks on the sector. The German mechanical and plant engineering sector recorded a year-on-year decline in order intake in every quarter of 2023, with high activity levels in the previous year also playing a role in the first quarter’s relative trend. The association estimates that orders fell by 12 percent overall compared to the previous year, with foreign orders down 13 percent and domestic orders down 11 percent.

Business developments

Restructuring

In fiscal year 2023, restructuring expenses of EUR 60.5 million were incurred in EBITDA (previous year: EUR 58.0 million) of which EUR 41.4 million was cash-effective (previous year: EUR 37.6 million). Restructuring expenses mainly relate to expenses in connection with the optimization of the product portfolio, the strategic realignment of the group, and the previously announced and partially executed streamlining of the portfolio. In addition, there were adjustments in all divisions in connection with the adverse economic impact of Ukraine war on GEA.

Acquisitions

On September 18, 2023, GEA finalized a purchase agreement for the acquisition of 100 percent of Centrifuges Unlimited Inc. in Canada (Separation & Flow Technologies division). The acquisition further expands GEA's service business in separators and decanters in the North American and Canadian markets. With the closing on November 1, 2023, GEA gained control of Centrifuges Unlimited Inc.

Disposals

As part of its continued focus on its strategic core markets of food, beverage and pharmaceuticals, GEA successfully completed the sale of its transport cooling business in South Africa (Heating & Refrigeration Technologies division) on January 31, 2023. The sale had been contractually agreed upon on September 19, 2022. An agreement on the final sale price was finalized on April 24, 2023. The purchase price adjustment necessitated a partial remittance from GEA to the acquiring entity.

Furthermore, on March 31, 2023, GEA completed the disposal of its milling systems business in Italy (Food & Healthcare Technologies division), which was contractually agreed on the same date.

Results of operations, financial position and net assets

Results of operations

Order intake

The order intake of the group declined mainly due to negative currency translation effects in the amount of EUR 221 million by 3.7 percent to EUR 5,469 million (previous year: EUR 5,679 million) in fiscal year 2023. However, organic order intake (excluding portfolio and currency translation effects) showed a slight growth of 0.8 percent. While Separation & Flow Technologies, Farm Technologies and Heating & Refrigeration Technologies grew organically, Liquid & Powder Technologies and Food & Healthcare Technologies experienced a decline in organic growth. Order intake fell year-on-year both for large orders (volume > EUR 15 million) and in orders of other sizes.

Order intake (EUR million)	2023	2022	Change in %	Organic growth in %
Separation & Flow Technologies	1,556.5	1,537.0	1.3	7.5
Liquid & Powder Technologies	1,754.0	1,865.1	-6.0	-3.2
Food & Healthcare Technologies	1,026.7	1,094.1	-6.2	-4.9
Farm Technologies	788.3	825.2	-4.5	1.9
Heating & Refrigeration Technologies	580.8	581.1	-0.1	8.2
Consolidation	-236.9	-223.7	-5.9	–
GEA	**5,469.4**	**5,678.9**	**-3.7**	**0.8**

Order intake development in %	2023
Change compared to prior year	**-3.7**
FX effects	-3.9
Acquisitions/divestments	-0.6
Organic	**0.8**

In terms of customer industries, beverage and new food recorded double-digit growth compared to the previous year, while all other industries experienced a decline.

With the exception of Northern and Central Europe all other regions reported a drop in order intake. Orders were slightly below previous year's level in DACH & Eastern Europe, Western Europe and Middle East & Africa, while the decline was more significant in North and Latin America and also in Asia Pacific. Orders went up by double digits in North and Central Europe.

GEA concluded 13 large orders (previous year: 17 large orders) in the year under review with a combined value of EUR 386 million (previous year: EUR 419 million). The Liquid & Powder Technologies division accounted for the majority of orders in excess of EUR 15 million, with a total volume of EUR 346 million. The Separation & Flow Technologies and Food & Healthcare Technologies divisions accounted for a further EUR 24 million and EUR 16 million respectively. The Liquid & Powder Technologies division's large orders were mainly in the beverage, new food, dairy, and chemical industries. The regional focus of these projects was on Northern and Central Europe, North America, Latin America and Asia Pacific.

Order backlog

At EUR 3,117 million, the group's order backlog remained at a high level and was only slightly below the prior-year figure of EUR 3,193 million. Based on revenues for the fiscal year 2023, the group's order backlog had a theoretical size of 6.9 months, down from the previous year's 7.4 months. On a divisional level, the theoretical size was between 4.2 months for Farm Technologies and 10.0 months for Liquid & Powder Technologies.

Order backlog (EUR million)	12/31/2023	12/31/2022	Change in %	Change (absolute)
Separation & Flow Technologies	594.3	592.0	0.4	2.2
Liquid & Powder Technologies	1,445.5	1,495.9	-3.4	-50.4
Food & Healthcare Technologies	634.5	664.8	-4.5	-30.2
Farm Technologies	277.2	290.7	-4.6	-13.5
Heating & Refrigeration Technologies	237.0	222.9	6.4	14.2
Consolidation	-72.0	-73.6	2.2	1.6
GEA	**3,116.6**	**3,192.7**	**-2.4**	**-76.2**

Revenue

At EUR 5,373 million, the group's revenues were 4.0 percent higher in the year under review than the prior-year figure of EUR 5,165 million. Excluding the negative currency translation effects of EUR 190 million and portfolio effects, organic growth of 8.4 percent was recorded. All divisions contributed to this achievement, some with double-digit growth rates. The share of service revenue also rose and amounted to 36.1 percent in the reporting year, compared to 34.9 percent in the previous year.

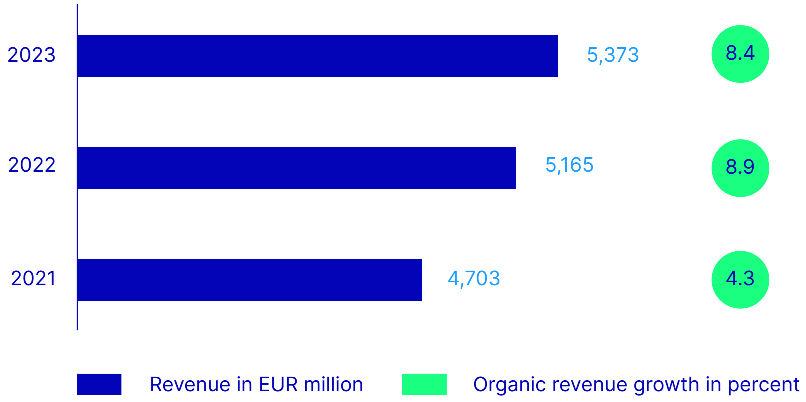
Revenues from customers in the chemical industry recorded significant growth compared to the previous year. Revenues from customers in other industries also performed well; only revenues from customers in new food and pharma experienced a decline compared to the previous year.

The book-to-bill ratio (i.e., the ratio of order intake to revenue) remained slightly positive at 1.02 (previous year: 1.10).

Revenue (EUR million)	2023	2022	Change in %	Organic growth in %
Separation & Flow Technologies	1,511.4	1,415.6	6.8	11.5
Liquid & Powder Technologies	1,724.2	1,715.6	0.5	3.7
Food & Healthcare Technologies	1,029.4	1,001.3	2.8	4.2
Farm Technologies	784.3	742.0	5.7	11.9
Heating & Refrigeration Technologies	556.3	523.6	6.2	14.8
Consolidation	-232.0	-233.5	0.6	–
GEA	**5,373.5**	**5,164.7**	**4.0**	**8.4**

Revenue development in %	2023
Change compared to prior year	**4.0**
FX effects	-3.7
Acquisitions/divestments	-0.6
Organic	**8.4**

Revenue and organic revenue growth for the last 3 years



External revenue (EUR million)	2023	2022	Change in %
Asia Pacific	1,198.0	1,236.2	-3.1
DACH & Eastern Europe	1,019.2	974.5	4.6
thereof Germany	454.0	429.0	5.8
Latin America	382.2	319.5	19.6
North America	1,161.5	1,106.6	5.0
North- and Central Europe	781.6	730.8	7.0
Western Europe, Middle East & Africa	831.1	797.2	4.3
GEA	**5,373.5**	**5,164.7**	**4.0**

Revenue was encouraging across various regions. Revenue in the Asia Pacific region declined slightly, while all other regions recorded positive revenue growth rates.

Results of operations

Development of selected key figures (EUR million)	2023	2022	Change in %
Revenue	5,373.5	5,164.7	4.0
Gross profit	1,821.7	1,715.8	6.2
Gross margin (in %)	33.9	33.2	68 bps
EBITDA before restructuring expenses	774.3	712.0	8.7
as % of revenue	14.4	13.8	62 bps
Restructuring expenses (EBITDA)	-60.5	-58.0	–
EBITDA	713.8	654.0	9.1
Depreciation, amortization, impairment losses and reversals of impairment losses on property, plant and equipment, intangible assets and financial assets and other reversals of impairment losses and impairment losses	-194.1	-193.1	–
EBIT	519.7	461.0	12.7
Restructuring expenses (EBIT)	60.9	68.1	–
EBIT before restructuring expenses	580.6	529.1	9.7
Profit for the period	392.8	401.4	-2.2
Earnings per share (EUR)	2.28	2.28	-0.1
Earnings per share before restructuring expenses (EUR)	2.56	2.58	-1.0

The following table shows EBITDA before restructuring expenses by division:

EBITDA before restructuring expenses/ EBITDA margin before restructuring expenses (EUR million)	2023	2022	Change in %
Separation & Flow Technologies	395.9	360.2	9.9
Liquid & Powder Technologies	177.8	165.6	7.4
Food & Healthcare Technologies	78.4	107.3	-26.9
Farm Technologies	109.6	86.1	27.3
Heating & Refrigeration Technologies	66.2	57.1	15.8
Others	-52.3	-64.6	19.1
Consolidation	-1.3	0.2	–
GEA	**774.3**	**712.0**	**8.7**
as % of revenue	**14.4**	**13.8**	**62 bps**

Revenue increased by 4.0 percent to EUR 5,373 million in fiscal year 2023. Gross profit rose disproportionately by 6.2 percent to EUR 1,822 million. Accordingly, the gross margin increased by 0.7 percentage points from 33.2 percent to 33.9 percent. The increase was mainly due the service business as volumes and margins increased. The gross margin reflected restructuring expenses amounting to EUR 13.8 million (previous year: EUR 38.9 million). Therefore, the gross margin before restructuring expenses went up slightly from 34.0 percent in the previous year to 34.2 percent.

EBITDA before restructuring expenses improved by 8.7 percent to EUR 774.3 million (previous year: EUR 712.0 million). This was due to an improvement in gross profit, but also to a slight decline in selling expenses and the disproportionately low increase in general and administrative expenses. Offsetting effects resulted from the change in provisions relating to termination benefits. The corresponding EBITDA margin increased by 0.6 percentage points to 14.4 percent. Almost all divisions contributed to this positive development and were able to increase their EBITDA before restructuring expenses; only Food & Healthcare Technologies recorded a decline.

At EUR 194.1 million, depreciation and amortization was slightly higher than in the previous year (EUR 193.1 million). In line with the positive operating trend, EBIT before restructuring expenses increased by 9.7 percent to EUR 580.6 million (previous year: EUR 529.1 million).

Profit after tax from continuing operations increased by 7.9 percent to EUR 404.6 million, with a tax rate of 18.9 percent (previous year: 16.0 percent). Earnings after taxes from discontinued operations with a minus of EUR 11.8 million (previous year: plus EUR 26.4 million) mainly include environmental protection and mining obligations. The interest rates relevant to the measurement of these obligations were adjusted to reflect current market conditions. Profit for the period declined by 2.2 percent to EUR 392.8 million in fiscal year 2023 (previous year: EUR 401.4 million).

As part of the share buyback program launched on November 9, 2023 (volume of up to EUR 400 million until the beginning of 2025 at the latest), 1,451,583 treasury shares were acquired by December 31, 2023, which are now held in treasury. The total value of the shares acquired in the 2023 financial year is around EUR 51 million.

With a slight decline in profit for the period, earnings per share of EUR 2.28 correspond to the previous year's level of EUR 2.28. This is due to the weighted average number of shares falling by 3.7 million to 172.2 million compared to the previous year. Earnings per share before restructuring expenses fell slightly from EUR 2.58 to EUR 2.56.

In accordance with the dividend policy, and in light of the good operational performance during fiscal year 2023, the Executive Board and Supervisory Board will propose that the Annual General Meeting approve the payout of a dividend of EUR 1.00 per share; EUR 0.05 higher than in the previous year.

Financial position

Given the market volatility and other factors, liquidity management and centralized financial management remain crucial to the company's continued success.

As of the reporting date, GEA's cash credit lines and their utilization are detailed as follows:

GEA cash credit lines incl. discontinued operations (EUR million)	Maturity	12/31/2023 approved	12/31/2023 utilized
Borrower's note loan (2023)	February 2023	–	–
Borrower's note loan (2025)	February 2025	100	100
Syndicated credit line („Club Deal")	August 2028	650	–
Bilateral credit lines	until further notice	61	1
Total		**811**	**101**

Principles and goals

The group's financial management encompasses liquidity management, group financing, and the management of interest rate and currency risks. As the group management company, GEA Group Aktiengesellschaft is responsible for GEA's central financial management. The aim is to reduce financing costs as far as possible, optimize investment interest rates, minimize counterparty risks, leverage economies of scale, and hedge interest rate and exchange rate risks as effectively as possible. Compliance with loan covenants is also ensured. GEA's financing strategy aims to ensure that payment obligations due can be met at all times and that, in addition to a strategic cash position, sufficient liquidity reserves are always available in the form of credit lines.

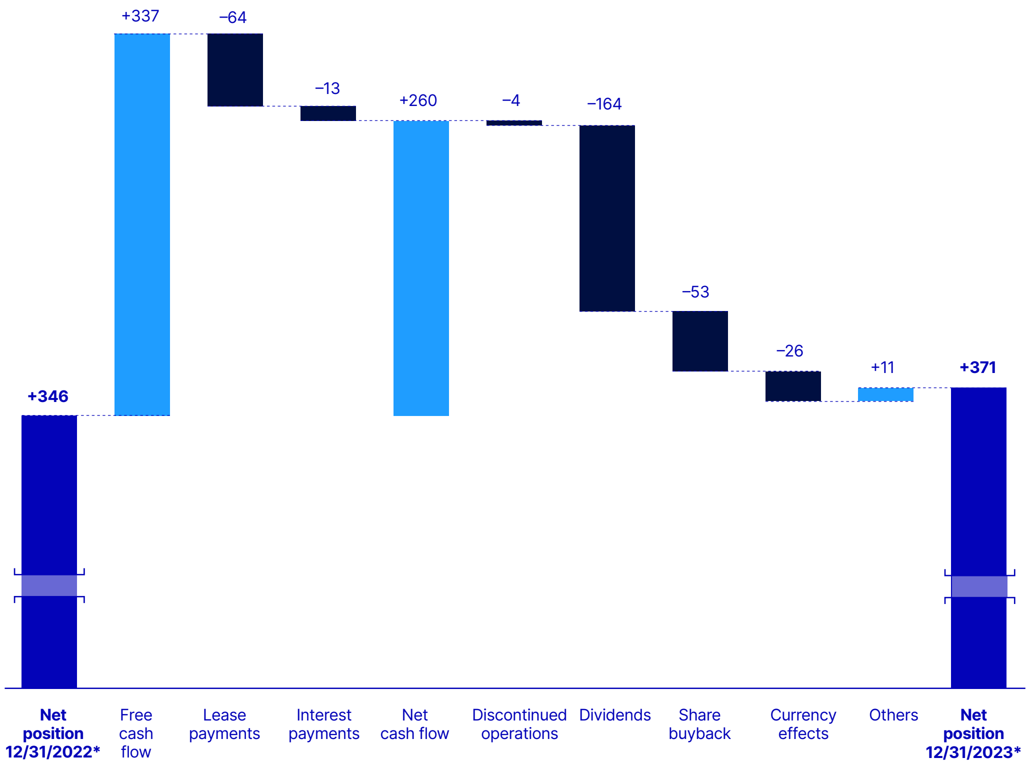
Cash flow from operating activities is the most important source of liquidity. Intragroup cash pooling aims to limit external cash investments and borrowings to the lowest level possible. To this end, GEA has also set up cash pooling groups in 17 countries to automatically balance the account balances of participating group companies on a daily basis in favor of or against a target account of GEA Group Aktiengesellschaft. Any additional liquidity requirements are generally taken up by the group management or excess liquidity is invested by it. However, liquidity peaks in individual countries often cannot be reduced on a cross-border basis for legal or tax reasons.

Liquidity

The key factors responsible for the change in net liquidity are shown in the following chart:

Change in net financial position

(EUR million)



*) Including lease liabilities of EUR 154.8 million as of December 31, 2023 (December 31, 2022: EUR 165.2 million).

Net liquidity including discontinued operations and taking into account lease liabilities amounted to EUR 371.2 million as of December 31, 2023, compared to EUR 346.4 million at the end of the previous year. The largest cash outflows are attributable to the dividend payments (EUR 163.7 million), investments in property, plant and equipment and intangible assets (EUR 228.4 million), the repayment of a borrower's note loan (EUR 100.0 million) and the payouts for acquiring treasury shares (EUR 52.7 million).

Overview of net liquidity incl. discontinued operations (EUR million)	12/31/2023	12/31/2022
Cash and cash equivalents	623.9	718.7
Current securities	4.0	–
Liabilities to banks	101.9	207.1
Leasing liabilities	154.8	165.2
Net liquidity (+)/Net debt (-)	**371.2**	**346.4**

Cash and cash equivalents amounted to EUR 623.9 million as of December 31, 2023, which was EUR 94.8 million lower than at the end of the previous year. As of the reporting date, liabilities to banks came to EUR 101.9 million (previous year: EUR 207.1 million) due to the repayment of the above mentioned borrower's note loan. Leasing liabilities fell slightly year-on-year to EUR 154.8 million (previous year: EUR 165.2 million).

GEA Group Aktiengesellschaft paid a dividend of EUR 0.95 per share in fiscal year 2023, which was 5 cents higher than the previous year. The amount of the dividend payment of EUR 163.7 million (previous year EUR 159.6 million) increased by 2.6 percent.

As of the reporting date, GEA had available guarantee lines mainly for contract performance, advance payments, and warranties of EUR 1,088 million (December 31, 2022: EUR 1,112 million), of which EUR 393.3 million were drawn (December 31, 2022: EUR 459.1 million).

GEA uses factoring programs as off-balance sheet financing instruments. As of December 31, 2023, the volume drawn amounted to EUR 49.2 million, compared to EUR 49.8 million as of December 31, 2022.

The maturity structure of trade receivables from third parties is shown in the table below. Trade receivables with regard to unconsolidated subsidiaries have not been recorded.

Maturity structure of trade receivables from third parties (EUR million)		12/31/2023	12/31/2022
Carrying amount before impairment losses		**804.3**	**767.1**
Impairment losses		61.4	55.9
Carrying amount		**742.9**	**711.2**
of which not overdue at the reporting date		631.9	619.2
of which past due at the reporting date		111.0	92.0
	less than 30 days	67.0	50.8
	between 31 and 60 days	21.4	18.0
	between 61 and 90 days	8.7	9.8
	between 91 and 180 days	7.2	8.8
	between 181 and 360 days	5.5	3.0
	more than 360 days	1.2	1.6

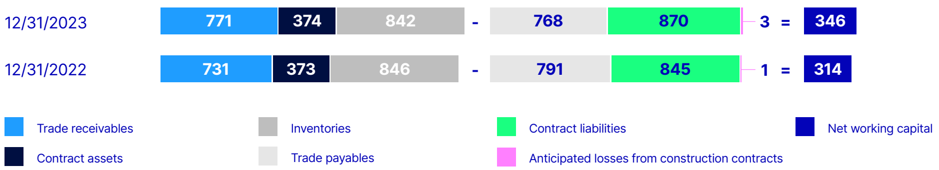
Net Working Capital

As of December 31, 2023, net working capital came to EUR 345.9 million. This was higher than the previous year's figure (December 31, 2022: EUR 314.1 million). The increase in net working capital is mainly attributable to higher trade receivables (up EUR 39.9 million) and lower trade liabilities (down EUR 22.8 million). The rise in contract liabilities of EUR 25.8 million was unable to offset this effect. Inventories and contract assets were on a par with the previous year.

The chart below shows the change in net working capital:

Net working capital (continued operations) **as of December 31, 2023**

(EUR million)



Consolidated Cash Flow Statement

The consolidated cash flow statement can be summarized as follows:

Overview of cash flow statement (EUR million)	2023	2022	Change absolute
Cash flow from operating activities	537.5	471.6	65.9
Cash flow from investing activities	-200.6	-175.8	-24.9
Free cash flow	**336.9**	**295.8**	**41.0**
Cash flow from financing activities	-397.8	-497.5	99.7
Net cash flow other discontinued operations	-3.9	-2.3	-1.6
Change in cash and cash equivalents	-94.8	-209.6	114.7

Cash flow from operating activities attributable to continuing operations posted a cash inflow of EUR 537.5 million and was EUR 65.9 million above previous year's level of EUR 471.6 million. The increase is mainly due to the improved earnings.

The cash outflow from investing activities increased to EUR 200.6 million (previous year: cash outflow of EUR 175.8 million), and is largely attributable to higher payments for investments in property, plant and equipment and intangible assets totaling EUR 228.4 million (previous year: EUR 203.8 million). This was offset in particular by proceeds from the divestment of companies and higher interest payments.

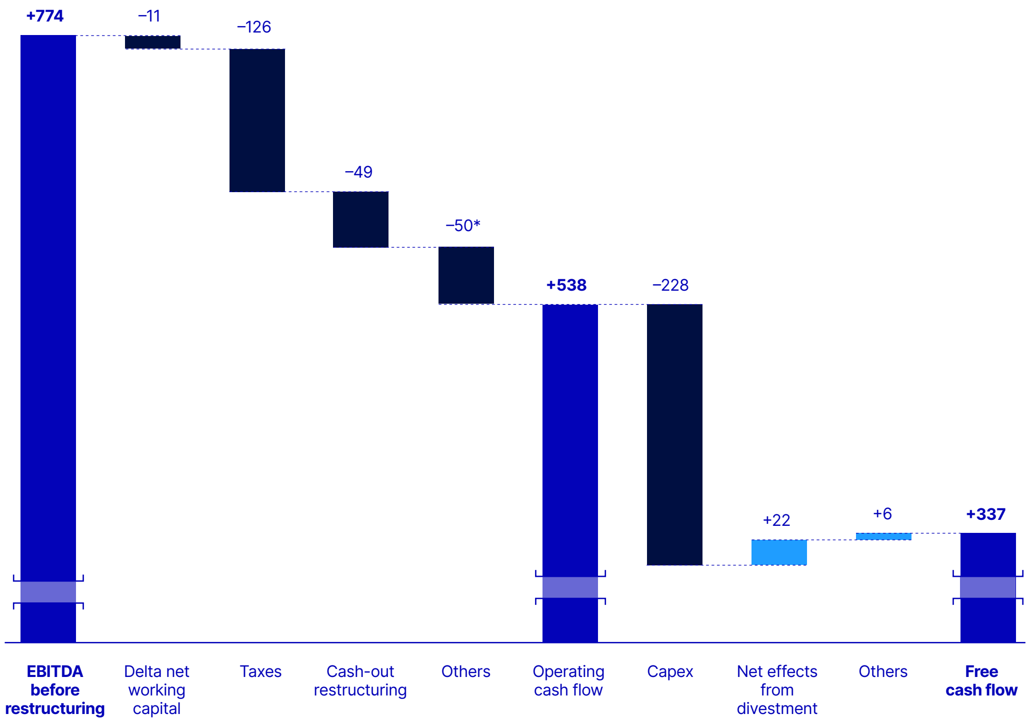
Free cash flow increased accordingly to EUR 336.9 million (previous year: EUR 295.8 million).

Financing activities attributable to continuing operations led to a cash outflow of EUR 397.8 million (previous year: cash outflow of EUR 497.5 million). In addition to the payment of the dividend for the 2022 financial year in the amount of EUR 163.7 million (previous year: EUR 159.6 million), this is mainly reflected in the repayment of the borrower's note loan in the amount of EUR 100.0 million (previous year: EUR 50.0 million) as well as the payout for acquiring treasury shares in the amount of EUR 52.7 million (previous year: EUR 205.6 million) and lease liabilities of EUR 64.0 million (previous year: EUR 63.7 million).

Cash flow from discontinued operations showed a cash outflow of EUR 3.9 million in the reporting period (previous year: cash outflow of EUR 2.3 million).

Free cash flow

(EUR million)



*) Mainly from pensions, provisions and changes in other assets/other liabilities.

Net assets

Condensed balance sheet (EUR million)	12/31/2023	as % of total assets	12/31/2022	as % of total assets	Change in %
Assets					
Non-current assets	3,100.5	52.1	2,982.7	50.4	3.9
thereof goodwill	1,476.1	24.8	1,475.6	24.9	0.0
thereof deferred taxes	382.7	6.4	350.1	5.9	9.3
Current assets	2,853.8	47.9	2,938.4	49.6	-2.9
thereof cash and cash equivalents	623.9	10.5	718.7	12.1	-13.2
thereof assets held for sale	2.0	0.0	15.4	0.3	-87.1
Total assets	**5,954.2**	**100.0**	**5,921.0**	**100.0**	**0.6**
Equity and liabilities					
Equity	2,397.7	40.3	2,280.9	38.5	5.1
Non-current liabilities	1,067.9	17.9	1,040.6	17.6	2.6
thereof deferred taxes	106.9	1.8	111.0	1.9	-3.7
Current liabilities	2,488.6	41.8	2,599.4	43.9	-4.3
thereof liabilities held for sale	–	–	3.3	0.1	–
Total equity and liabilities	**5,954.2**	**100.0**	**5,921.0**	**100.0**	**0.6**

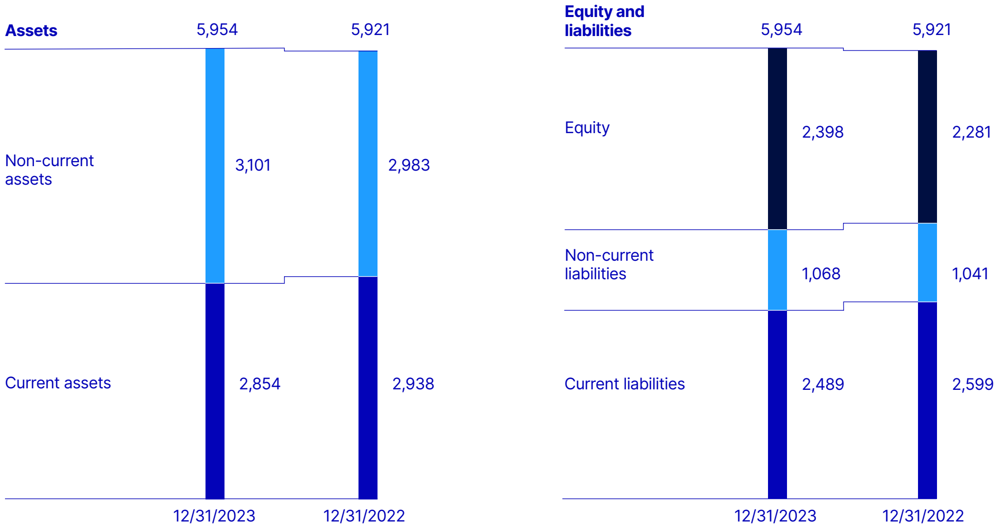
In the 2023 fiscal year, GEA's total assets increased by EUR 33.2 million and amounted to EUR 5,954 million as at December 31, 2023 (December 31, 2022: EUR 5,921 million). Non-current assets rose by EUR 117.8 million to EUR 3,100 million. This increase was especially due to an increase in property, plant and equipment and deferred taxes. Non-current assets accounted for 52.1 percent of total assets. Current assets amounted to EUR 2,854 million as at December 31, 2023 (31 December 2022: EUR 2,938 million). The decline is due in particular to a decrease in cash and cash equivalents. This was offset by an increase in trade receivables.

Equity increased by EUR 116.8 million to EUR 2,398 million as at December 31, 2023. Accordingly, the equity ratio rose to 40.3 percent, compared to 38.5 percent as at December 31, 2022. This balance sheet item was significantly improved by the consolidated profit of EUR 392.8 million. In contrast, the dividend payment (EUR 163.7 million), the acquisition of treasury shares (EUR 51.1 million) and the other comprehensive income of minus EUR 73.0 million had a negative impact.

Within non-current liabilities, both non-current provisions (increase of EUR 13.2 million) and employee benefit obligations (increase of EUR 29.2 million) experienced a rise. The share of non-current liabilities of total assets increased slightly from 17.6 percent to 17.9 percent. The decrease in current liabilities by EUR 110.8 million to EUR 2,489 million is primarily due to lower other current financial liabilities. Trade payables also fell compared to the previous year. This was offset by an increase in current contract liabilities.

Comparison of net assets 2023 vs. 2022

(EUR million)



Return on Capital Employed (ROCE)

Return on capital employed (ROCE)	12/31/2023	12/31/2022
EBIT before restructuring expenses of the last 12 months (EUR million)	580.6	529.1
Capital employed (EUR million)*	1,776.3	1,665.9
Return on capital employed (in %)	**32.7**	**31.8**
Return on capital employed (in %) at constant currencies	33.1	30.9

*) Capital employed excluding goodwill from the acquisition of the former GEA AG by former Metallgesellschaft AG in 1999 (average of the last 4 quarters); this also applies for the ROCE of the divisions.

As of the reporting date, capital employed (calculated as the average of the last four quarters) increased from EUR 1,666 million to EUR 1,776 million. In addition to higher net working capital, the increase was mainly due to an increase in non-current assets. Due to a markedly higher EBIT before restructuring expenses, return on capital employed (ROCE) improved from 31.8 percent to 32.7 percent. This improvement was driven by the Farm Technologies and Heating & Refrigeration Technologies divisions, which significantly increased their ROCE compared to the previous year.

Calculation capital employed* (EUR million)	12/31/2023	12/31/2022
Total assets	**5,835.1**	**5,870.3**
minus current liabilities	2,432.6	2,451.8
minus goodwill mg/GEA	780.4	782.0
minus deferred tax assets	336.7	313.3
minus cash and cash equivalents	489.0	689.6
minus ohter adjustments	20.1	-32.3
Capital employed	**1,776.3**	**1,665.9**

*) average of the last 4 quarters.

GEA`s divisions in the fiscal year

Separation & Flow Technologies

Separation & Flow Technologies (EUR million)	2023	2022	Change in %
Order intake	1,556.5	1,537.0	1.3
Revenue	1,511.4	1,415.6	6.8
Share service revenue in %	46.9	46.4	44 bps
EBITDA before restructuring expenses	395.9	360.2	9.9
as % of revenue	26.2	25.4	75 bps
EBITDA	393.3	335.4	17.3
EBIT before restructuring expenses	350.8	316.8	10.7
EBIT	348.2	288.5	20.7
ROCE in % (3rd Party)*	37.8	37.2	66 bps

*) ROCE, as one of the relevant performance indicators, has now been considered as „ROCE 3rd Party“ (excluding interdivisional effects in the capital employed) at the divisional level.

Revenue development in %	2023
Change compared to prior year	**6.8**
FX effects	-4.7
Acquisitions/divestments	–
Organic	**11.5**

Order intake rose by 1.3 percent to EUR 1,556 million in the year under review review despite negative currency translation effects. In organic terms, the increase was as high as 7.5 percent. Service business made a particularly sizable contribution with double-digit growth rates. Customer industries like dairy processing, food and beverage showed a stable development whereas chemical and other customer industries recorded higher growth rates compared to the previous year. The book-to-bill ratio of 1.03 was slightly below the prior-year level of 1.09.

Revenue increased year-on-year by 6.8 percent to EUR 1,511 million. Organic growth was even stronger with with 11.5 percent. Revenues were higher year-over-year in all regions; only China was unable to keep pace with growth and posted a lower revenue figure than in the previous year. Service business again developed very positively. The service share of sales increased further to 46.9 percent, compared to 46.4 percent in the previous year. The service share also increased further in absolute terms.

EBITDA before restructuring expenses also showed significant growth of 9.9 percent, rising to EUR 395.9 million. Sales growth and a higher proportion of services made a particularly positive contribution here. The EBITDA margin correspondingly rose to 26.2 percent, compared with 25.4 percent in the previous year.

The increase in ROCE from 37.2 percent in the previous year to 37.8 percent was primarily attributable to the marked improvement in EBIT before restructuring expenses.

Liquid & Powder Technologies

Liquid & Powder Technologies (EUR million)	2023	2022	Change in %
Order intake	1,754.0	1,865.1	-6.0
Revenue	1,724.2	1,715.6	0.5
Share service revenue in %	23.6	21.0	259 bps
EBITDA before restructuring expenses	177.8	165.6	7.4
as % of revenue	10.3	9.7	66 bps
EBITDA	168.6	160.7	4.9
EBIT before restructuring expenses	141.0	129.6	8.8
EBIT	131.9	124.7	5.8
ROCE in % (3rd Party)*	–	–	–

*) ROCE, as one of the relevant performance indicators, has now been considered as "ROCE 3rd Party" (excluding interdivisional effects in the capital employed) at the divisional level. Due to negative capital employed, ROCE is not meaningful.

Revenue development in %	2023
Change compared to prior year	**0.5**
FX effects	-3.2
Acquisitions/divestments	–
Organic	**3.7**

Order intake fell by 6.0 percent to EUR 1,754 million in the year under review. This corresponds to an organic decline of 3.2 percent. The downturn was largely due to a global reluctance of customers in the dairy, food and chemical industry to invest in major projects (exceeding EUR 5 million). In contrast, order intake from customers in the beverage and new food industries performed extremely well. The book-to-bill ratio remained above 1 at 1.02, but below the previous year's figure of 1.09. A total of 11 large orders (volume exceeding EUR 15 million) were finalized with a combined value of over EUR 346 million. In the previous year, there were 16 large orders totaling EUR 399 million.

Revenue increased slightly year-on-year by 0.5 percent to EUR 1,724 million. Organic growth amounted to 3.7 percent. The increase was largely driven by the division's good order backlog at the beginning of the year. The Northern & Central Europe, Western Europe, Middle East & Africa and Latin America regions all recorded growth. Asia Pacific reported a slight improvement compared to the previous year. The DACH & Eastern Europe region was down on the previous year due to the general economic weakness, while North America came out below the previous year due to a high basis for comparison. The service business also performed extremely well and accounted for a higher share of revenue in the year under review than in the previous year (23.6 percent and 21.0 percent respectively).

EBITDA before restructuring expenses increased by 7.4 percent to EUR 177.8 million. The improvement was largely driven by an increase in the gross margin due to a positive product mix and GEA continuing its excellence initiatives to optimize order processing. In addition administrative expenses remained stable. The EBITDA margin reached 10.3 percent (previous year: 9.7 percent).

As in the previous year, ROCE for the reporting period is still not meaningful due to the negative capital employed.

Food & Healthcare Technologies

Food & Healthcare Technologies (EUR million)	2023	2022	Change in %
Order intake	1,026.7	1,094.1	-6.2
Revenue	1,029.4	1,001.3	2.8
Share service revenue in %	33.1	30.6	252 bps
EBITDA before restructuring expenses	78.4	107.3	-26.9
as % of revenue	7.6	10.7	-310 bps
EBITDA	55.9	103.4	-45.9
EBIT before restructuring expenses	31.8	65.5	-51.5
EBIT	8.9	58.7	-84.8
ROCE in % (3rd Party)*	6.7	15.2	-847 bps

*) ROCE, as one of the relevant performance indicators, has now been considered as „ROCE 3rd Party“ (excluding interdivisional effects in the capital employed) at the divisional level.

Revenue development in %	2023
Change compared to prior year	**2.8**
FX effects	-1.4
Acquisitions/divestments	–
Organic	**4.2**

Order intake fell by 6.2 percent to EUR 1,027 million in the year under review. This corresponds to an organic decline of 4.9 percent. This trend was reflected in almost every region and driven largely by the freezer business and business involving process lines for the processing and packaging of food (particularly meat and pasta). As in the previous year, one large order (exceeding EUR 15 million) with a value of EUR 16 million was secured (previous year: EUR 20 million). The book-to-bill ratio was balanced at 1.00 (previous year: 1.09).

Revenue increased in the 2023 fiscal year by 2.8 percent to EUR 1,029 million. Organic growth reached 4.2 percent. Performance varied between regions. The above average growth rates in the Latin America and DACH & Eastern Europe regions offset the significant downturn in the region Northern and Central Europe as well as in China. Service revenue trended upwards again, increasing its share of total revenue from 30.6 percent in the previous year to 33.1 percent in the reporting year.

EBITDA before restructuring expenses fell strongly in the fiscal year, dropping 26.9 percent to EUR 78.4 million. This trend was driven by lower margins in the new machinery business which is mainly due to insufficient passing on of cost increases in some customer projects. Furthermore, expenses associated with capacity adjustment measures are included. The corresponding margin fell from 10.7 percent in the previous year to 7.6 percent.

ROCE fell in the year under review from 15.2 percent to 6.7 percent. This was largely due to the significant downturn in EBIT before restructuring expenses.

Farm Technologies

Farm Technologies (EUR million)	2023	2022	Change in %
Order intake	788.3	825.2	-4.5
Revenue	784.3	742.0	5.7
Share service revenue in %	44.9	46.6	-172 bps
EBITDA before restructuring expenses	109.6	86.1	27.3
as % of revenue	14.0	11.6	238 bps
EBITDA	102.4	79.4	28.8
EBIT before restructuring expenses	83.3	58.2	43.3
EBIT	76.0	50.9	49.4
ROCE in % (3rd Party)*	28.8	20.0	882 bps

*) ROCE, as one of the relevant performance indicators, has now been considered as „ROCE 3rd Party“ (excluding interdivisional effects in the capital employed) at the divisional level.

Revenue development in %	2023
Change compared to prior year	**5.7**
FX effects	-6.2
Acquisitions/divestments	–
Organic	**11.9**

Order intake fell in the 2023 fiscal year by 4.5 percent to EUR 788.3 million. This trend was mainly driven by negative currency translation effects. In organic terms, order intake improved by 1.9 percent. While hygiene products and spare parts contributed to the growth of the service business, the new machinery business saw a decline, particularly in the areas of manure management technology and automated milking carousels. The book-to-bill ratio remained on a positive level at 1.01, but lower than the high prior-year level of 1.11.

Revenue increased by 5.7 percent in the year under review to EUR 784.3 million. Despite negative currency translation effects, revenue rose by 11.9 percent in organic terms. This upswing stemmed primarily from robust growth in the new machinery business, particularly in the area of milking robots. Overall, almost all regions achieved an increase in revenue. Only the Asia Pacific region, including China, reported declining revenues. The share of service revenue fell from the very high level of 46.6 percent in the previous year to 44.9 percent in the reporting period, but was up on the previous year in absolute terms.

EBITDA before restructuring expenses increased by a significant 27.3 percent to EUR 109.6 million. This result was achieved thanks to the higher revenue as well as consistent price adjustments and cost-saving measures. The corresponding margin improved significantly to 14.0 percent (previous year: 11.6 percent).

In the reporting period, ROCE reached 28.8 percent, significantly higher than the previous year’s level of 20.0 percent. This was largely due to the considerable increase in EBIT before restructuring expenses.

Heating & Refrigeration Technologies

Heating & Refrigeration Technologies (EUR million)	2023	2022	Change in %
Order intake	580.8	581.1	-0.1
Revenue	556.3	523.6	6.2
Share service revenue in %	37.2	38.2	-107 bps
EBITDA before restructuring expenses	66.2	57.1	15.8
as % of revenue	11.9	10.9	98 bps
EBITDA	60.7	49.8	21.7
EBIT before restructuring expenses	52.6	42.9	22.6
EBIT	47.1	32.5	45.0
ROCE in % (3rd Party)*	39.2	25.5	1,369 bps

*) ROCE, as one of the relevant performance indicators, has now been considered as „ROCE 3rd Party" (excluding interdivisional effects in the capital employed) at the divisional level.

Revenue development in %	2023
Change compared to prior year	**6.2**
FX effects	-2.0
Acquisitions/divestments	-5.8
Organic*	**14.8**

*) Organic sales growth is calculated on the basis of the revenue reported in the previous year less disposed businesses.

Order intake came to EUR 580.8 million in the year under review, putting it on a par with the previous year's level of EUR 581.1 million. However, organic growth attained a pleasing level of 8.2 percent, driven by factors such as stronger demand for energy-efficient and sustainable products. The positive trend in the Compression Technologies business unit had a significant impact in this area. The book-to-bill ratio of 1.04 was slightly below the prior-year level of 1.11 but still at a good level.

Revenue reached EUR 556.3 million, 6.2 percent higher than the prior-year figure of EUR 523.6 million. Organic revenue showed significant growth of 14.8 percent. The North America region had a particularly large impact on the positive revenue trend due to the strong order intake in 2023. The DACH & Eastern Europe, Western Europe, Middle East & Africa and Northern and Central Europe regions also had a particularly positive impact on revenue growth. The share of service revenue decreased from 38.2 percent in the previous year to 37.2 percent due to the strong demand for new machinery, but increased in absolute terms.

EBITDA before restructuring expenses saw a considerable 15.8 percent increase to EUR 66.2 million. This was largely driven by a higher gross profit due to higher volumes and margins. The corresponding EBITDA margin rose to 11.9 percent, compared with 10.9 percent in the previous year.

At 39.2 percent, ROCE was significantly higher than the prior-year figure of 25.5 percent. This was mainly attributable to the significantly increased EBIT before restructuring expenses as well as the improvement in capital employed, which was impacted by the divestment of transport cooling business in South Africa, among other factors.

Others/Consolidation

Others/consolidation (in Mio. EUR)	2023	2022	Change in %
Order intake	-236.9	-223.7	-5.9
Revenue	-232.0	-233.5	0.6
EBITDA before restructuring expenses	-53.6	-64.4	16.7
EBITDA	-67.1	-74.7	10.2
EBIT before restructuring expenses	-78.9	-84.0	6.0
EBIT	-92.4	-94.3	2.0

In the Others/Consolidation segment, there were no significant changes in revenue and EBITDA in the reporting year. The improvement in EBITDA before restructuring expenses was largely due to a change in the allocation of general overhead costs.

Employees

Compared to December 31, 2023, the number of employees (FTEs) increased by 536 to 18,773. The reduction in temporary employees and self-employed contractors amounted to 229 full-time equivalents. The total workforce grew to 19,562.

The number of employees in the divisions rose by 484. Food & Healthcare Technologies was the only division to experience a small downturn in the size of its workforce. All other divisions and the GEA Corporate Center employed more people than in the previous year.

The following table shows the development of employee numbers per region:

Employees* by region	12/31/2023		12/31/2022	
DACH & Eastern Europe	7,258	38.7%	6,984	38.3%
North and Central Europe	3,310	17.6%	3,173	17.4%
Asia Pacific	3,051	16.2%	3,049	16.7%
Western Europe, Middle East & Africa	2,653	14.1%	2,716	14.9%
North America	1,776	9.5%	1,694	9.3%
Latin America	725	3.9%	621	3.4%
Employees (FTE)	**18,773**	**100.0%**	**18,236**	**100.0%**
Contingent workforce (FTE)	789	–	1,018	–
Total workforce (FTE)	**19,562**	**–**	**19,255**	**–**

*) Full-time equivalents (FTE) excluding vocational trainees and inactive employment contracts.

ECONOMIC DEVELOPMENT OF GEA GROUP AG

In addition to the reporting by the group, the following section describes the performance of GEA Group Aktiengesellschaft (group management). The annual financial statements are prepared in accordance with the Handelsgesetzbuch (HGB - German Commercial Code) and the Aktiengesetz (AktG - German Stock Corporation Act). They are presented here in condensed form.

GEA Group Aktiengesellschaft oversees central management functions of the group. Furthermore, it provides its subsidiaries with services on the basis of service agreements. These include services from the Global Corporate Center, global excellence functions (production and logistics) and the Human Resources department. Profit and loss transfer agreements exist with key domestic subsidiaries. Accordingly, the economic position of GEA Group Aktiengesellschaft depends on its subsidiaries' business development, which fundamentally corresponds to the economic situation of the GEA Group, as discussed in this Report on Economic Position under section "Overall Assessment of Business Development".

The transfer of the global excellence functions of "Purchasing", the management function of "Global IT" and "Business Process Outsourcing (BPO) Finance" to a subsidiary was completed in the fiscal year. As in the previous year, this transformation, which began in 2021 and was realized over the course of the last two fiscal years, required the transfer of assets and service contracts with third parties. This leads to limited comparability in the income statement. This mainly affects the revenues, purchased services and other operating expenses.

Net assets

Net assets of GEA Group Aktiengesellschaft (HGB) (EUR million)	12/31/2023	as % of total assets	12/31/2022	as % of total assets
Assets				
Intangible fixed assets	0.8	0.0%	1.3	0.0%
Tangible fixed assets	1.2	0.1%	1.3	0.0%
Long-term financial assets	2,278.5	55.3%	2,234.2	62.4%
Fixed assets	**2,280.5**	**55.4%**	**2,236.8**	**62.4%**
Receivables and other assets	1,472.4	35.8%	1,029.1	28.7%
thereof Receivables from affiliated companies	1,449.0	35.2%	1,014.3	28.3%
thereof Other assets	23.4	0.6%	14.8	0.4%
Cash	363.8	8.8%	313.0	8.7%
Current assets	**1,836.2**	**44.6%**	**1,342.1**	**37.5%**
Prepaid expenses	**1.7**	**0.0%**	**3.2**	**0.1%**
Total	**4,118.4**	**100.0%**	**3,582.1**	**100.0%**
Equity and liabilities				
Subscribed capital	520.4	12.6%	520.4	14.5%
Own shares	-4.4	-0.1%	-23.4	-0.7%
Capital reserves	250.8	6.1%	250.8	7.0%
Revenue reserves	442.3	10.7%	189.9	5.3%
Net retained profits	323.8	7.9%	164.7	4.7%
Equity	**1,532.9**	**37.2%**	**1,102.4**	**30.8%**
Provisions	**324.2**	**7.9%**	**316.7**	**8.8%**
Liabilities to banks	101.4	2.5%	202.3	5.6%
Trade payables	5.8	0.1%	2.1	0.1%
Liabilities to affiliated companies	2,151.1	52.2%	1,956.1	54.6%
Other liabilities	3.0	0.1%	2.5	0.1%
Liabilities	**2,261.3**	**54.9%**	**2,163.0**	**60.4%**
Total	**4,118.4**	**100.0%**	**3,582.1**	**100.0%**

GEA Group Aktiengesellschaft's total assets are significantly higher than the previous year. As part of central liquidity management, receivables from affiliated companies increased by EUR 434.7 million and liabilities to affiliated companies increased by EUR 195.0 million. Other significant changes in the total assets resulted from the repayment of a borrower's note loan in the amount of EUR 100.0 million and the increase in equity.

The change in long-term financial assets of EUR 44.3 million is mainly attributable to intra-group transactions, such as the contribution of a subsidiary to GEA Refrigeration Technologies GmbH at fair value and the repayment of a subsidiary's capital reserves.

Overall, equity increased by EUR 430.5 million compared with the previous year. This is mainly attributable to the net income for the fiscal year of EUR 645.3 million less dividends paid of EUR 163.7 million. Another offsetting effect resulted from the acquisition of 1,485,819 treasury shares in fiscal year 2023. Of the acquisition cost of EUR 51.0 million, EUR 46.6 million was offset against revenue reserves and the imputed share of subscribed capital of EUR 4.4 million was reported as treasury shares. Moreover, 8,161,096 treasury shares with a notional proportion in the share capital of EUR 23.5 million were retired.

The equity ratio rose by 6.4 percentage points to 37.2 percent. In addition, appropriation to other revenue reserves amounting to EUR 322.5 million were made in the fiscal year.

There were only minor changes overall to the rest of the balance sheet items compared with the previous year.

Results of operations

Income statement of GEA Group Aktiengesellschaft (HGB) (EUR million)	01/01/ - 12/31/2023	01/01/ - 12/31/2022
Revenue	52.9	98.1
Other operating income	186.4	318.4
Cost for purchased services	-3.5	-12.8
Personnel expenses	-55.6	-62.1
Amortization amd writedowns of intangible fixed assets and depreciation and writedowns of tangible fixed assets	-1.4	-5.0
Other operating expenses	-224.8	-356.5
Investment income	725.9	234.2
Net interest income	-25.9	-3.1
Write-downs on financial assets and seurities held as current assets	-5.9	-44.2
Taxes on income	-2.6	-1.3
Net income after income tax	**645.5**	**165.7**
Other tax expenses	-0.2	-0.4
Net income for the fiscal year	**645.3**	**165.3**
Retained profits brought forward	1.0	1.4
Withdrawals from other revenue resevers	–	–
Appropriation to other revenue reserves	-322.5	-2.0
Net retained profits	**323.8**	**164.7**

The revenues of GEA Group Aktiengesellschaft essentially comprise charges of EUR 28.6 million (previous year: EUR 76.7 million) that were allocated to subsidiaries in the 2023 fiscal year as well as income from trademark fee of EUR 22.6 million (previous year: EUR 19.8 million). In addition to externally sourced services, GEA Group AG also invoices its own services under service contracts to group companies, mainly to a service company, which it uses as the basis for calculating the allocation. The increase in the trademark fee is mainly due to increased revenues in the group companies to be charged.

Currency translation gains and losses from own hedges and hedges for affiliated companies are reported gross within other operating income and expenses, as in the previous year. Currency translation gains of EUR 174.1 million (previous year: EUR 259.9 million) and currency translation losses of EUR 168.1 million (previous year: EUR 250.4 million) resulted in a net gain of EUR 6.0 million (previous year: EUR 9.5 million).

In addition to exchange rate gains, other operating income mainly includes, income from the reversal of impairments on current assets amounting to EUR 3.5 million (previous year: EUR 17.7 million), income from charges passed on and ancillary business totaling EUR 3.0 million (previous year: EUR 17.7 million), income from write-ups on financial assets EUR 2.7 million and income from the reversal of provisions totaling EUR 2.3 million (previous year: EUR 6.1 million).

Cost for purchased services – totaling EUR 3.2 million (previous year: EUR 12.0 million) – mainly comprises services provided by external companies required to execute the functions of the Global Corporate Center, the global excellence functions (production and logistics) and human resources. The sharp decrease resulted from the transfer of the global excellence function of purchasing, the management function of global IT as well as business process outsourcing (BPO) finance within the group.

Personnel expenses decreased by EUR 6.5 million compared with the previous year. This was mainly attributable to the year-on-year decrease in expenses for pensions and other benefits.

In addition to planned depreciations on fixed assets of EUR 0.8 million (previous year: EUR 2.1 million), impairments include allowances on receivables from affiliated companies of EUR 0.6 million (previous year: EUR 2.9 million).

In addition to exchange rate losses, other operating expenses mainly include expenses for expert opinion and consulting fees, expenses for cost allocations within the group, expenses for additions to the provisions for negative consequences from mining, expenses for rents, leases and leasing as well as for IT and licenses. The sharp decline in expenses for IT and licenses is directly related to the transfer of certain functional areas to another group company. Expenses for negative consequences from mining are declining overall. The addition in the fiscal year results from the assessment of findings for the old mining and shaft backfilling segments, taking the rate of cost increases into account. In the previous year, an adjusted expectation regarding future cash outflows for the pit water segment led to a significant increase since the rate of cost increases was adjusted to current market conditions.

Investment income is the result of income from profit transfer agreements totaling EUR 364.3 million (previous year: EUR 284.5 million), EUR 73.1 million (previous year: EUR 57.1 million) in expenses from loss assumptions, income from investments in the amount of EUR 283.0 million (previous year: EUR 6.8 million) as well as income from the contribution of long-term financial assets in the amount of EUR 151.7 million. The income from investments mainly results from the repayment from the capital reserve of a subsidiary.

Income from profit transfer agreements mainly comprise profits transferred by GEA Mechanical Equipment GmbH, GEA Group Holding GmbH, GEA Refrigeration Germany GmbH, GEA Farm Technologies GmbH as well as GEA Brewery Systems GmbH. Expenses for loss absorption mainly comprise assumed losses from GEA Group Services GmbH, GEA Refrigeration Technologies GmbH, GEA Farm Technologies GmbH and GEA Wiegand GmbH.

Net interest income decreased by EUR 22.8 million to EUR -25.9 million (previous year: EUR -3.1 million). This is mainly due to the year-on-year increase in interest expenses to affiliated companies by EUR 60.7 million to EUR -74.1 million (previous year EUR 13.4 million). This increase was only partially offset by the EUR 33.6 million rise in interest and similar income from affiliated companies to EUR 50.6 million (previous year EUR 17.0 million).

The impairments on long-term financial assets totaling EUR 5.9 million (previous year: EUR 44.2 million) mainly contained depreciation on strategic interests in companies. The sharp decline resulted from the valuation of shares in affiliated companies based in Russia, which was necessary in the previous year.

Financial position

Cash flow of GEA Group Aktiengesellschaft (HGB) (EUR million)	2023	2022
Cash flow from operating activities	-16.1	89.4
Cash flow from investing activities	382.5	130.6
Cash flow from financing activities	-315.6	-418.7
Liquid funds	**363.8**	**313.0**

In the year under review, cash flow from operating activities amounted to EUR -16.1 million. This is EUR 105.5 million lower than in the previous year. This decrease was largely due to a significant decline in cash inflows from affiliated companies in connection with cash-pooling.

At EUR 382.5 million, the cash inflow from investing activities increased by EUR 251.9 million. This is mainly attributable to inflows from capital repayments, which were partly offset by outflows for investments in property, plant and equipment, intangible assets, and investments in long-term financial assets.

The cash flow from financing activities in the fiscal year mainly includes previous year's dividend payout of EUR 163.7 million (previous year: EUR 159.6 million), the repayment of a borrower's note loan of EUR 100.0 million (previous year: EUR 50.0 million) and the acquisition of treasury shares in the amount of EUR 51.0 million (previous year: EUR 205.5 million).

GEA Group Aktiengesellschaft's business development is subject to the same risks and opportunities as the GEA Group. They are presented in the section "Opportunity and risk report." Additionally, the relationships with subsidiaries may result in negative effects due to statutory and contractual contingent liabilities (in particular financing).

The income of the GEA Group Aktiengesellschaft is significantly dependent on the development of the investment income of its subsidiaries. Group income serves as the basis for net retained profits and the corresponding dividend payment. Hence, net retained profits (HGB) for the fiscal year are regarded as the most important key performance indicator for GEA Group Aktiengesellschaft. GEA Group Aktiengesellschaft predicted that net retained profits for fiscal year 2023 would be at or around the same level of the previous year, taking existing revenue reserves into account. After an appropriation of EUR 322.5 million to other revenue reserves, net retained profits amounted to EUR 323.8 million. For fiscal year 2024, GEA Group Aktiengesellschaft expects net retained profits to be on par with fiscal year 2022, taking existing revenue reserves into account.

The Executive Board and Supervisory Board will propose to the Annual General Meeting to pay a dividend of EUR 1.00 per dividend-bearing share to shareholders and to use the net retained profits of EUR 323.8 million as follows:

- Dividend payment of EUR 170.9 million to shareholders
- Allocation of EUR 152.0 million to revenue reserves
- Profit carried forward: EUR 0.9 million

EXPLANATORY INFORMATION

in accordance with sections 289(4), 315(4) and 315a, sentence 1 of the HGB

Composition of the subscribed capital and restrictions on rights

As of December 31, 2023, the subscribed capital of GEA Group Aktiengesellschaft was EUR 520,375,765.57 and was composed of 172,331,076 no-par value bearer shares. All the shares are ordinary shares. The rights and obligations arising from these shares are defined in the Aktiengesetz (AktG - German Stock Corporation Act). This can result in restrictions affecting voting rights. For example, according to section 71b of the AktG, GEA Group Aktiengesellschaft is not entitled to voting rights from its own shares (treasury share). Outstanding capital in the amount of EUR 515,993 thousand (previous year EUR 496,945 thousand) corresponds to subscribed capital of EUR 520,376 thousand less the nominal value per share of repurchased shares in the amount of EUR 4,383 thousand.

The Executive Board is not aware of any contractual restrictions affecting voting rights. Contractual restrictions affecting the transfer of shares arise through the share-based payment program (Share Ownership Guidelines) of the current remuneration system, under which all members of the Executive Board were paid in the past fiscal year. The members of the Executive Board have pledged to acquire a certain number of shares of the GEA Group Aktiengesellschaft and not to encumber them or sell them until the end of their terms on the Executive Board.

Interests in the share capital exceeding 10 percent of the voting rights

According to a notice published in fiscal year 2018, the interest of Massachusetts Financial Services Company, Boston, Massachusetts, U.S. in GEA Group Aktiengesellschaft has exceeded 10 percent of the voting rights since June 21, 2018.

Provisions governing the appointment and dismissal of members of the Executive Board and amendments to the Articles of Association

The members of the Executive Board are appointed and dismissed by the Supervisory Board in accordance with sections 84 and 85 of the AktG in conjunction with section 31 of the Mitbestimmungsgesetz (MitbestG - German Codetermination Act).

Under Article 20(1) of GEA Group Aktiengesellschaft’s Articles of Association, amendments to the Articles of Association may - where legally permissible - be adopted by a simple majority of the share capital represented at the vote. Under Article 21 of the Articles of Association, the Supervisory Board may resolve amendments and additions to the Articles of Association that only affect their wording. In other respects, section 179 of the AktG applies to amendments to the Articles of Association.

Powers of the Executive Board to issue and repurchase shares

In accordance with Article 4(3) of the Articles of Association, the Executive Board is authorized, with the approval of the Supervisory Board, to increase the share capital by up to EUR 52,000,000.00 by issuing new no-par-value shares against cash contributions until April 29, 2026 (Authorized Capital I) and, in accordance with Article 5(4) of said Articles, to define a starting date for profit rights that differs from the date stipulated by law. The authorization may be exercised fully or in partial amounts, on one or several occasions. Shareholders are generally entitled to subscribe to the new shares. The statutory preemptive right may also be granted by the new shares being underwritten by one or more banks with the obligation of offering them to the shareholders for preemptive subscription (indirect preemptive right). The Executive Board is authorized, with the approval of the Supervisory Board, to disapply shareholders’ preemptive rights (i) insofar as this is necessary to eliminate fractional amounts, and (ii) in order to grant the creditors of convertible or option bonds with option or conversion privileges or obligations issued by GEA Group Aktiengesellschaft or a subordinate group company of the company a right to subscribe to new shares to the extent to which they would be entitled after exercising the option or conversion rights or after fulfilling conversion obligations. Furthermore, the Executive Board is authorized, with the approval of the Supervisory Board, to stipulate the further details of capital increases from Authorized Capital I and the terms and conditions of the share issue.

In accordance with Article 4(4) of the Articles of Association, the Executive Board is authorized, with the approval of the Supervisory Board, to increase the share capital by up to EUR 52,000,000.00 by issuing new no-par-value shares against cash and/or in-kind contributions until April 29, 2026 (Authorized Capital II) and, in accordance with Article 5(4) of said Articles, to define a starting date for profit rights that differs from the date stipulated by law. The authorization may be exercised fully or in partial amounts, on one or several occasions. Shareholders are generally entitled to subscribe to the new shares. The statutory preemptive right may also be granted by the new shares being underwritten by one or more banks with the obligation of offering them to the shareholders for preemptive subscription (indirect preemptive right). Furthermore, the Executive Board is authorized, with the approval of the Supervisory Board, to disapply shareholders' preemptive rights in the case of capital increases against in-kind contributions, in particular, for the purpose of business combinations or the acquisition of companies, parts of companies, or equity interests in companies or other assets. In addition, the Executive Board is authorized, with the approval of the Supervisory Board, to disapply shareholders' preemptive rights if the new shares are to be issued to persons who are in an employment relationship with GEA Group Aktiengesellschaft or one of its group companies.

In such cases, the new shares may also be issued via a bank or another company meeting the requirements of section 186(5) sentence 1 of the AktG. In addition, the Executive Board is authorized, with the consent of the Supervisory Board, to exclude the statutory shareholders' preemptive right to use the scrip dividend to offer shareholders the option (wholly or partially) of contributing their dividend claim in part or in whole as an in-kind contribution to the company in return for new shares in the company. Finally, the Executive Board is authorized, with the approval of the Supervisory Board, to disapply shareholders' preemptive rights (i) insofar as it is necessary to eliminate fractional amounts, and (ii) in order to grant the creditors of convertible or option bonds with option or conversion privileges or obligations issued by GEA Group Aktiengesellschaft or a subordinate group company of the Company a right to subscribe to new shares to the extent to which they would be entitled after exercising the option or conversion rights or after fulfilling conversion obligations. The Executive Board is furthermore authorized, with the approval of the Supervisory Board, to stipulate the further details of the capital increases from Authorized Capital II and the terms and conditions of the share issue.

In accordance with Article 4(5) of the Articles of Association, the Executive Board is authorized, with the approval of the Supervisory Board, to increase the share capital by up to EUR 52,000,000.00 by issuing new no-par-value shares against cash contributions until April 29, 2026 (Authorized Capital III) and, in accordance with Article 5(4) of said Articles, to define a starting date for profit rights that differs from the date stipulated by law. The authorization may be exercised fully or in partial amounts, on one or several occasions. Shareholders are generally entitled to subscribe to the new shares. The statutory preemptive right may also be granted by the new shares being underwritten by one or more banks with the obligation of offering them to the shareholders for preemptive subscription (indirect preemptive right). The Executive Board is authorized, with the approval of the Supervisory Board, to exclude shareholders' subscription rights if the issue price of the new shares is not significantly lower than the stock exchange price for company shares of the same kind at the time of setting the issue price. In line with the modalities of this disapplication of preemptive rights, the shares issued in accordance with section 203(1) and section 186(3) no. 4 of the AktG may not exceed 10% of the share capital of the Company either at the time at which this authorization takes effect or at the time at which it is exercised (upper limit). The upper limit is reduced by the proportionate amount of the share capital allocable to shares of the company issued during the term of the Authorized Capital III under disapplication of preemptive rights in accordance with section 71(1) no. 8 sentence 5, and Section 186(3) sentence 4 of the AktG. The upper limit is also reduced by the proportionate amount of the share capital allocable to shares issued to service convertible or option bonds with option or conversion privileges or obligations issued by GEA Group Aktiengesellschaft or a subordinate group company of the company, as long as the convertible or option bonds have been issued during the term of the Authorized Capital III under disapplication of preemptive rights in accordance with section 186(3) sentence of the 4 AktG. Furthermore, the Executive Board is authorized, with the approval of the Supervisory Board, to disapply shareholders' preemptive rights (i) insofar as it is necessary to eliminate fractional amounts, and (ii) in order to grant the creditors of convertible or option bonds with option or conversion privileges or obligations issued by GEA Group Aktiengesellschaft or a subordinate group company of the Company a right to subscribe to new shares to the extent to which they would be entitled after exercising the option or conversion rights or after fulfilling conversion obligations. The Executive Board is furthermore authorized, with the approval of the Supervisory Board, to stipulate the further details of the capital increases from Authorized Capital III and the terms and conditions of such share issuance.

For Authorized Capital I to III governed by Article 4(3) to (5) of the Articles of Association, the following limit applies to the issuance of shares subject to exclusion of preemptive rights and is intended to ensure that the total upper limit for the issuance and/or sale of shares under exclusion of shareholders' preemptive rights in the amount of 10 percent of the current share capital is not exceeded in any event: The pro rata amount of the share capital attributable to shares issued subject to the exclusion of shareholders' preemptive rights may not exceed a total of 10 percent of the company's share capital outstanding at the time of the adoption of the resolution of the Annual General Meeting (with the exception of issuance subject to exclusion of preemptive rights related to fractional shares). This limit shall include (i) shares issued or sold during the term of this authorization subject to the exclusion of preemptive rights on the basis of other authorizations granted to the Executive Board, as well as (ii) shares to be issued to service bonds with conversion or option rights or obligations, provided that the bonds are issued during the term of this authorization subject to the exclusion of preemptive rights. These offsets no longer apply, and the original amount of the authorization will be available again as soon as a subsequent Annual General Meeting once again authorizes the Executive Board to issue or sell shares or to issue bonds with conversion or option rights and/or obligations, while excluding shareholders' preemptive rights.

Under a resolution adopted by the Annual General Meeting on April 30, 2021, the share capital was contingently increased by up to EUR 52,000,000.00 subject to the issuance of no-par-value bearer shares (Article 4(6) of the Articles of Association, Contingent Capital 2021). The contingent capital increase will only be implemented to the extent that the holders of conversion or option privileges from convertible bonds or option bonds, profit participation rights or profit participating bonds or a combination of these instruments issued against cash contributions by GEA Group Aktiengesellschaft or a subordinate group company of the company on the basis of the authorization by the Annual General Meeting resolution dated April 30, 2021, exercise their conversion or option privileges, or, if they are obliged to convert or exercise options, satisfy their obligation to convert or exercise options, and if no cash settlement is granted or own shares or shares of another listed company are used in settlement. New shares will be issued at the conversion or option price to be determined in each case in accordance with the authorization referred to above. The new shares bear dividend rights from the beginning of the fiscal year in which they were created as a result of the exercising of conversion or option rights or the fulfillment of conversion or option obligations. The Executive Board is authorized to determine the further details of the implementation of the contingent capital increase.

The Executive Board is authorized, with the consent of the Supervisory Board, to issue bearer or registered convertible bonds or bonds with warrants, participating bonds or profit participation rights or a combination of these instruments (collectively referred to as "bonds") with a total nominal value of up to EUR 750,000,000.00 on one or more occasions through April 29, 2026 and to grant or impose on the holders of such bonds conversion or option rights or obligations for shares in the company with a proportionate share of share capital totaling up to EUR 52,000,000.00 in accordance with the relevant terms and conditions of the bonds. The bonds may be issued against cash or in-kind contributions. The respective terms and conditions may include a conversion or option obligation. The bonds may also be issued by GEA Group Aktiengesellschaft group company within the meaning of section 18 of the AktG. In such cases, the Executive Board is authorized, with the approval of the Supervisory Board, to assume a guarantee for the bonds on behalf of the company and to grant or impose conversion or option rights or obligations on the holders of bonds in exchange for GEA Group Aktiengesellschaft shares. Shareholders are generally entitled to subscribe to the bonds. The statutory subscription right may also be granted by the bonds being underwritten by a bank or bank consortium with the obligation of offering them to the shareholders for preemptive subscription (indirect subscription right). The Executive Board is authorized, subject to the consent of the Supervisory Board, to exclude fractional shares from the shareholders' subscription rights and to exclude the subscription rights under certain conditions and within the limits set by the Annual General Meeting.

The exclusion of the preemptive right is possible in such cases where bonds are issued against contributions in kind (in particular for the purpose of business combinations or the acquisition of companies, parts of companies, or equity interests in companies or other assets) or in cases where bonds are issued for cash at an issue price that does not materially fall below the theoretical market value of the bonds. The pro rata amount of capital stock represented by shares to be issued to service bonds carrying conversion or option rights or obligations that are issued with the exclusion of shareholders' preemptive rights may not exceed 10 percent in the aggregate of the company's capital stock outstanding at the time the resolution is adopted by the Annual General Meeting (excluding the issue with the exclusion of preemptive rights for fractional amounts); for such purposes, shares issued or sold with the exclusion of preemptive rights on the basis of other authorizations granted to the Executive Board during the term of such authorization are also taken into account. These offsets no longer apply, and the original amount of the authorization will be available again as soon as a subsequent Annual General Meeting authorizes the Executive Board to issue or sell shares again while excluding shareholders' preemptive rights.

Under a resolution adopted by the Annual General Meeting on April 27, 2023, in accordance with section 71(1) no. 8 AktG, GEA Group Aktiengesellschaft is authorized to purchase treasury shares for up to a total of 10 percent of the total proportionate amount of share capital at the time the resolution was adopted. The authorization is valid until April 26, 2028. The shares may be purchased via the stock exchange or by means of a public purchase offer to all shareholders. The shares may subsequently be used for all purposes allowed by law. With the approval of the Supervisory Board, the shares may also (i) be sold in another manner than through the stock exchange or by means of a public offering addressed to all shareholders, provided that the issue price of the new shares is not significantly lower than the price for GEA Group Aktiengesellschaft shares of the same kind at the time of sale, (ii) be transferred to third parties for the purpose of business combinations or the acquisition of companies, parts of companies, or equity interests in companies or other assets, (iii) be used to service convertible or option bonds, (iv) be used to implement a scrip dividend or (v) be withdrawn. Further details on the resolutions on the share buyback adopted by the Annual General Meeting on April 27, 2023, are available in the invitation to the Annual General Meeting, which was published in the Federal Gazette on March 14, 2023.

Material agreements that take effect in the event of a change of control following a takeover bid

The individual lenders of the syndicated credit lines amounting to EUR 650 million may refuse new drawdowns in the event of a change of control. The lenders may call in any amounts already drawn down and terminate the respective credit line giving 20 days' notice.

In the event of a change of control and subject to at least 30 days' notice, the lenders of the borrower's note loans (Schuldscheindarlehen) in the total amount of EUR 100 million are entitled to request early repayment of their loan receivable, including interest accrued up to the date of the early repayment.

Under a master loan agreement totaling EUR 200 million, which is primarily used to issue guarantees for subsidiaries, the lender has the right in the event of an imminent change of control to negotiate the continuation of the agreement under modified terms. If no agreement is reached, the loan agreements fall due with immediate effect. In such case, the lender must be released from its obligations under guarantees furnished within two months or, at the discretion of the borrower, the latter shall make a cash deposit in the amount of the outstanding obligations under the guarantees furnished and any credit drawdowns are to be settled.

With regard to a cash management credit line in the amount of EUR 50 million, the lender is granted an extraordinary right of termination in the event of an imminent change of control if the contracting parties are unable to reach an agreement on continuation, possibly under changed terms, in a timely manner.

Compensation arrangements with members of the Executive Board or employees

The remuneration system, which is applied uniformly to all Executive Board members starting January 1, 2022, provides for any termination or other rights in the event of a change of control.

Key attributes of the internal control and risk management system relating to the financial reporting process

Further details can be found in the "Risk and opportunity management system" and "Internal Control System" sections of the "Opportunities and Risk report."

CORPORATE GOVERNANCE STATEMENT

In accordance with section 317(2) sentence 6 of the Handelsgesetzbuch (HGB – German Commercial Code), the audit of the disclosures to be made in the Corporate Governance Statement in accordance with sections 289f(2) and 5, 315d of the HGB must be limited to the auditor checking whether such disclosures have been made.

Transparent, responsible corporate governance and control, geared towards long-term value enhancement, are given high priority by GEA Group Aktiengesellschaft. In doing so, the group aligns its actions with the generally accepted principles of corporate governance while implementing the suggestions and recommendations of the German Corporate Governance Code as amended on April 28, 2022 (published in the Federal Gazette on June 27, 2022).

Declaration of Conformity

Since submission of its last Declaration of Conformity dated December 8, 2022, GEA Group Aktiengesellschaft has fully complied with the recommendations of the German Corporate Governance Codex in the version of April 28, 2022, published by the Federal Ministry of Justice in the official section of the Federal Gazette ("GCGC 2022").

GEA Group Aktiengesellschaft declares that it itends to fully comply with the recommendations of the GCGC 2022 in the future as well.

Düsseldorf, December 8, 2023

For the Supervisory Board	For the Executive Board	
Prof. Dieter Kempf	Stefan Klebert	Bernd Brinker

Code of Conduct

GEA has begun to reorganize its codes of conduct and associated responsibilities as part of the Mission 26 group strategy adopted in 2021 and its cross-divisional approach to sustainability. The following codes describe the system of values within which business decisions are made and the guidelines with which employees and management bodies are to align their actions.

The Code of Conduct of GEA Group Aktiengesellschaft requires that the group's business activities comply with all existing laws and high ethical standards. The Code of Conduct applies to all employees and bodies of GEA worldwide. It is supplemented by policies and guidelines on individual areas, in particular anti-corruption, anti-trust and competition law, money laundering and conflicts of interest. This Code of Conduct is supplemented by a Code of Conduct for Suppliers and Subcontractors that obliges these groups to comply with a set of key principles regarding their responsibility towards society, the environment and the individuals involved in the production of goods and/or the provision of services. In addition, the company and the European Works Council have jointly agreed to a Code of Corporate Responsibility. This code sets out the ethical, social, and legal standards that are binding on all GEA employees. GEA has further obligations arising from its participation in the United Nations Global Compact.

Since 2021, the management of sustainability-related practices has been the responsibility of a dedicated sustainability department, which reports directly to the CEO of GEA Group Aktiengesellschaft. All activities and reporting channels that were previously allocated across different departments now converge here. Further details can be found in the section “Non-financial group statement” and in the separately published Sustainability Report. All of the above documents are published at www.gea.com.

Compliance

Compliance in terms of measures designed to ensure adherence to the law as well as internal corporate policies, and the group companies' compliance therewith, are considered to be a key management and supervisory task at GEA. The compliance organization's group-wide activities focus on the prevention of corruption and money-laundering, conflicts of interest, antitrust law as well as data protection.

The Chief Compliance Officer coordinates and ensures the implementation of compliance measures, in particular in the aforementioned areas. In this capacity, he reports to both the Executive Board and the Audit and Cybersecurity Committee of the Supervisory Board. Moreover, the Compliance Organization is involved in processing all compliance incidents carrying the risk of criminal proceedings or a fine. The Chief Compliance Officer is assisted by the Compliance Organization and is in regular contact with the Group Audit department and other assurance functions. Central legal compliance activities are pooled and handled by the “Compliance & Principle Legal Matters” unit that forms part of the group's corporate legal department. The divisions also support the compliance activities undertaken at the operational level. A Compliance Executive is appointed for each division and a Compliance Manager is appointed for each operating entity. The divisions, regions, entities, and central functions are also advised and supported by compliance officers. In addition, further functions for the purpose of counseling and supporting the Chief Compliance Officer are involved as required. GEA's Compliance Management System was reviewed in accordance with the IDW PS 980 auditing standard by the auditing company KPMG with regard to the effectiveness of the company's anti-corruption and anti-trust policies. The audit was completed in February 2023. Detailed information on GEA's Compliance Organization and its functions can be found in the “Compliance” section of the separately published Sustainability Report at www.gea.com.

Alongside the Compliance Organization described above, GEA has a globally operational export control organization. Key export control activities are pooled in the Tax, Customs & Foreign Trade department. Furthermore, each operating entity is assigned a local Export Control Manager.

The members of the Compliance Organization regularly discuss the latest developments as well as potential impacts or additions to GEA's compliance program. Since December 1, 2014, GEA has been using a globally implemented Integrity System. This Integrity System allows GEA employees and independent third parties to report suspected compliance infringements or violations of GEA's Codes of Conduct – the general principles of social responsibility – via an online system. To the extent permitted by law, individuals reporting a violation may remain anonymous. This anonymity is guaranteed by the technical set-up of the Integrity System. Suspicions can also be reported anonymously by telephone via an external law firm. The Compliance Organization rigorously investigates all suspected cases and involves group internal audit where necessary. Moreover, mandatory face-to-face and web-based training sessions are regularly held for compliance-relevant group employees to cover current issues and regulations relative to the law, the Code of Conduct and GEA's additional compliance policies and guidelines. GEA's compliance program is rounded off by close cooperation between the compliance organization and the group's internal audit department, compliance risk audits and random sampling at the time of the annual audit, as well as on-site talks and video conferences between representatives of the compliance organization and local managers for evaluating best practices within the group. The Compliance Management System is supplemented by various IT tools, for example for compliance approvals, compliance reports, compliance risk audits, or third-party audits.

Tax

For GEA, the topic of taxation (including tax compliance) is a key component of responsible corporate governance, through which companies contribute to the economies of the countries where they operate. GEA follows a well-defined and transparent tax strategy, with profits taxed in the countries in which they arise. As specified in the current Group Tax Directive, profits are not transferred to countries with lower tax rates or where they are not subject to taxation at all for the purposes of reducing taxation. It is not in GEA's interest to establish structures that contravene this principle. The group's management decisions are not made based on tax rates or other tax issues.

However, as a global group with revenue-generating activities in numerous countries, a number of GEA companies are located in countries or territories with lower tax rates than Germany. These companies are required to run business operations locally. None of these companies was founded to obtain tax advantages and none is used for the purposes of aggressive tax planning. GEA is a significant taxpayer and employer in the regions in which the company is active and operates at all times in full compliance with local tax and customs regulations, as well as internationally applicable directives, including all DAC Directives. In this way, GEA contributes to creating and developing prosperity and income in these regions.

When setting up its Tax Compliance Management System, GEA was guided by the seven fundamental components of Assurance Standard 980 of the Institute of Public Auditors in Germany (IDW) and the related practice notes published by the IDW. The Tax Compliance Management System description for Germany prepared on this basis was successfully audited with regard to its appropriateness, implementation, and effectiveness in the subdomains of VAT and income tax and is subject to an ongoing review and improvement process. GEA identifies tax risks uniformly across the group and integrates them into the group's risk management. The Senior Vice President Corporate Tax, Customs and Foreign Trade reports directly to the CFO, who in turn informs the Supervisory Board about tax matters.

As part of its legal obligations, GEA Group Aktiengesellschaft provides information relevant to taxation for all group companies to the German Federal Central Tax Office (Country-by-Country Report) each year. This tax information is based in part on GEA Group Aktiengesellschaft's consolidated financial statements that have been audited and certified by an independent auditor.

Information Security, Business Continuity and Crisis Management

The “Information Security” function leads organizational aspects in the areas of security, business continuity management and crisis management, with the task of developing and implementing group-wide guidelines, programs, and procedures in these areas via the Information Security Management System (ISMS). Detailed explanations on these topics can be found in the separately published Sustainability Report 2023 at www.gea.com. The Chief Information Security Officer regularly reports to the Audit and Cybersecurity Committee.

Sustainability

Sustainable corporate management has long had a firm place in the company's self-image and governance. Early on, GEA recognized how important it is to act responsibly and continuously improve on past achievements. The company seizes market opportunities but always keeps an eye on the associated social and environmental impacts.

During fiscal year 2023, GEA was again able to make a significant contribution to enhancing product and process sustainability, improving employee involvement, and deepening social commitment. The topic of sustainability is one of the strategic levers of our Mission 26 strategy, which was adopted in fiscal year 2021 and contains a clear roadmap up to the year 2026 and beyond. In its strategy, GEA describes the major challenges for the business and its stakeholders and translates them into specific goals. As a global leader in the industry, GEA also wants to be at the forefront of sustainability.

In line with the requirements of the CSR Directive Implementation Act (CSR-RUG), GEA has supplemented its existing financial reporting with disclosures on material non-financial aspects of its business activities in the areas of environmental, employee and social matters, respect for human rights and anti-corruption. The reporting is prepared in accordance with the GRI standards. Accordingly, the company published the GEA Group's separate Sustainability Report at www.gea.com on March 7, 2024.

Responsible risk management

Sustainable growth can only be achieved if both the opportunities and the risks associated with corporate activities are identified and adequately taken into account. For this reason, an effective control, risk, and opportunity management system represents one of the core elements of corporate governance at GEA. Further information on this topic can be found in the chapter "Report on Opportunities and Risks".

Accounting and audit transparency

GEA Group Aktiengesellschaft is committed to transparent reporting. The company's consolidated financial statements and the condensed half-yearly financial report are prepared in accordance with the International Financial Reporting Standards (IFRS) as applicable in the European Union. The single entity financial statements of GEA Group Aktiengesellschaft, which are legally required and determine dividend payout, are governed by the Handelsgesetzbuch (HGB). The Supervisory Board engages the external auditor elected by the shareholders at the Annual General Meeting. The Audit and Cybersecurity Committee within the Supervisory Board pays particular attention to the oversight of the accounting process, the effectiveness of the internal control, risk management and internal audit systems, the audit of the annual financial statements (in this context, notably the selection and independence of the auditor and the additional services provided by the auditor, the engagement of the auditor, the determination of key audit areas as well as the audit fee), including the quality of the financial statements, as well as compliance. While also taking into account the EU audit reform, it ensures that the auditor's work is not compromised by any conflicts of interest and that the auditor immediately reports any and all findings and events relevant to the Supervisory Board's discharge of duties that have come to the attention of the auditor while performing the audit. Besides the consolidated and annual financial statements, the Audit and Cybersecurity Committee also discusses the half-yearly financial report and quarterly statements with the Executive Board.

Detailed reporting and information concerning remuneration of the Executive Board and Supervisory Board

GEA Group Aktiengesellschaft communicates openly, actively, and extensively. GEA Group Aktiengesellschaft regularly and promptly informs shareholders, shareholders' associations, analysts, and interested members of the public on equal terms about the company's situation as well as any material changes to its business. In this respect, the company's website constitutes an important means of communication. It contains the annual and half-yearly financial reports as well as quarterly statements, press releases and other notifications required under the EU Market Abuse Regulation (MAR) and the Wertpapierhandelsgesetz (WpHG – German Securities Trading Act), the financial calendar and other relevant information.

The company's website also contains a separate section with all key information on Executive Board and Supervisory Board remuneration. It presents the current remuneration system for the Executive Board, which was approved by a majority of 89.54 percent at the Annual General Meeting on April 30, 2021, the Remuneration Report 2022 – which was approved by a majority of 93.75 percent at the Annual General Meeting on April 27, 2023 – and the auditor's report on the audit of the Remuneration Report. The website also presents the Supervisory Board remuneration system, which is governed by the Articles of Association and which was adopted by a majority of 99.57 percent by the Annual General Meeting of April 27, 2023, with retroactive effect from January 1, 2023.

Moreover, analyst meetings, press conferences and events for investors are hosted regularly. The presentations delivered on these occasions are also available at www.gea.com under "Investors".

Transactions and shareholdings held by members of governing bodies

Under section 19 of the MAR, Executive Board and Supervisory Board members or persons closely associated with them are obliged to disclose reportable transactions in shares of GEA Group Aktiengesellschaft or related financial instruments if the transactions concluded in one calendar year reach or exceed the threshold of EUR 20,000. The transactions reported to the company in fiscal year 2023 were duly disclosed and published on the company's website (www.gea.com). The total number of shares in GEA Group Aktiengesellschaft held by all Executive Board and Supervisory Board members amounts to less than 1 percent of the shares issued by the company.

Corporate governance and control: Executive Board and Supervisory Board

GEA Group Aktiengesellschaft is subject to the German Stock Corporation Act and has a two-tier board structure comprising the Executive Board and the Supervisory Board. The Executive Board constitutes the group's management body. The Supervisory Board – which is composed of twelve members, half of whom are shareholder representatives, while the other half are employee representatives – appoints and advises the Executive Board while overseeing its work. The Executive Board and the Supervisory Board cooperate closely for the benefit of the company, their primary common goal being the long-term increase in shareholder value.

Executive Board

The Executive Board holds overall responsibility for the management of the company in accordance with statutory requirements, the Articles of Association as well as the applicable Rules of Procedure and the corporate policies that are in place. In line with the Rules of Procedure of the Executive Board, each Executive Board member has overall responsibility for and independently manages the area of responsibility assigned to them under the schedule of responsibilities while keeping the entire Executive Board consistently informed of all essential business affairs. Decisions on matters of fundamental importance or of a particular magnitude must be made by the entire Executive Board. Executive Board resolutions are adopted at regular meetings or, should no member of the Executive Board raise any objections, in writing, orally (also via telephone or video conference) or by referring to other common means of communication (e.g., emails or an electronic approval process). Each member of the Executive Board must immediately disclose conflicts of interest to the Chairman of the Supervisory Board and inform the other members of the Executive Board accordingly.

The Executive Board reports to the Supervisory Board regularly, promptly, and comprehensively on all issues relevant to the company relating to strategy, planning, business progress, risk exposure, the risk management system as well as compliance. Should important issues or business matters that may considerably impact on the situation of the company arise, the Executive Board will notify the Chairman of the Supervisory Board without undue delay. The Articles of Association and the Rules of Procedure specify key transactions that require the Supervisory Board's approval. Further information on the individual Executive Board responsibilities and members can be found in the chapter "GEA Executive Board" as well as in the chapter "Corporate Bodies and their Mandates" under the heading "Executive Board".

Supervisory Board

The Supervisory Board advises the Executive Board on the management of the company and oversees its conduct of the company's business. Between the Supervisory Board meetings, the Chairman of the Supervisory Board maintains regular contact with the Executive Board, in particular the CEO, with whom he discusses matters of strategy, planning, business progress, risk exposure, risk management and corporate compliance. The Supervisory Board usually holds seven meetings per calendar year that are attended by the members of the Executive Board unless the Chairman of the Supervisory Board determines otherwise. The Supervisory Board also regularly meets without the Executive Board. Resolutions of the Supervisory Board are usually made at meetings. Unless the majority of the Supervisory Board members immediately object, the Chairman of the Supervisory Board may also determine those resolutions be adopted during a conference call or a video conference or outside of meetings by the members casting their votes in writing, text form or by telephone. Resolutions require a simple majority of the votes cast unless statutory law provides for a different majority. After the notice of the meeting has been given to all members, the Supervisory Board has a quorum when a minimum of half of its members vote on a resolution by attending in person, by telephone or video conference or have cast their votes in writing or text form pursuant to section 108(3) Aktiengesetz (AktG – German Stock Corporation Act).

The Supervisory Board regularly evaluates the effectiveness of its activities and those of its committees. These evaluations are carried out every two years either with the assistance of independent advisers or in the form of self-evaluation questionnaires completed by the Supervisory Board. In fiscal year 2023, the Supervisory Board performed such a self-evaluation of its own activities and those of its committees by means of questionnaires. The results and findings of this self-evaluation were discussed in depth at a Supervisory Board meeting. The next evaluation, which will be carried out with the assistance of an independent consultant, is scheduled for fiscal year 2024.

With the exception of the Nomination Committee, the Supervisory Board and the committees have equal numbers of shareholder and employee representatives. The shareholder and employee representatives meet separately in advance of each plenary meeting. Both the Executive Board and the Chairman of the Supervisory Board regularly participate in these preliminary meetings.

In fiscal year 2021, the employee representatives were elected by the employees in a secret, free and equal ballot in accordance with the Mitbestimmungsgesetz (MitbestG – German Codetermination Act). Supervisory Board members are elected by means of separate ballots for the employee representatives, the management representatives, and the union representatives. In this process, each Supervisory Board member is elected or re-elected individually. The election committees then submit the individual results to the main election committee, which subsequently announces the overall result.

In fiscal year 2023, the composition of the Supervisory Board changed. Jörg Kampmeyer stepped down from his position for personal reasons with effect from August 31, 2023. Andreas Renschler was appointed by the court as his replacement on the Supervisory Board with effect from September 1, 2023.

Supervisory Board Committees

Committees support the work of the Supervisory Board. These are primarily the Presiding and Sustainability Committee, the Audit and Cybersecurity Committee (formerly the Audit Committee) and the Committee for Innovation and Product Sustainability. In addition, there is the statutory Mediation Committee as well as the Nomination Committee recommended by the German Corporate Governance Code.

With the exception of the Nomination Committee, all committees have four members, with equal numbers of shareholder and employee representatives. The Nomination Committee consists of three members, solely comprising shareholder representatives in accordance with Recommendation D.4 of the German Corporate Governance Code.

The Presiding and Sustainability Committee and the Audit and Cybersecurity Committee typically convene four or five times throughout the fiscal year. The Innovation and Product Sustainability Committee usually meets twice a year. The Nomination Committee meets regularly and deals with the diversity concept for the composition of the Supervisory Board, consisting of the objectives for its composition and the competence profile for the entire body. The Nomination Committee and the Mediation Committee also hold meetings as required.

Resolutions of the Presiding and Sustainability Committee, Audit and Cybersecurity Committee and Innovation and Product Sustainability Committee are generally passed by a simple majority of the votes cast. If the vote is tied, the respective chairman receives a second vote in the event of an additional ballot on the same item.

The work of the Presiding and Sustainability Committee focuses on Executive Board matters, including issues related to succession and remuneration, although decisions on the remuneration system for the Executive Board, the total remuneration awarded to the individual Executive Board members as well as their appointment and dismissal are reserved for the full Supervisory Board. The Presiding and Sustainability Committee addresses corporate governance issues and certain transactions requiring approval. These include the approval of significant transactions between the company, on the one hand, and Supervisory or Executive Board members and their related parties, on the other. There were no such related party transactions in the past fiscal year. In particular, the Company did not grant any loans to members of the Executive Board or Supervisory Board or persons closely related to them.

The Presiding and Sustainability Committee’s responsibilities also include addressing – together with the Executive Board – the company’s strategy, particularly the sustainability strategy and important fundamental issues relating to the environment, social affairs and corporate governance (ESG - Environmental, Social, Governance) and their implementation as well as investments and financing. The members of the Presiding and Sustainability Committee are Prof. Dieter Kempf (Chairman), Roger Falk, Rainer Gröbel and Dr. Jens Riedl.

In accordance with the requirements of the German Corporate Governance Code (GCGC) and the Supervisory Board's competence profile, the Audit and Cybersecurity Committee has sound knowledge of and experience in applying financial accounting standards as well as internal control and risk management systems. It primarily focuses on overseeing the financial accounting process and the auditing of the financial statements, including the preparation and auditing of the sustainability report. The Audit and Cybersecurity Committee ensures that adequate consideration is given to the key sustainability issues and objectives for the company in relation to its internal audit system, compliance, and cybersecurity. The members of the Audit and Cybersecurity Committee are Dr. Annette G. Köhler (Chairwoman), Claudia Claas, Prof. Dieter Kempf and Brigitte Krönchen. Effective December 8, 2022, Prof. Dr. Annette G. Köhler was named as a financial expert in the field of accounting within the meaning of section 100(5) AktG and Prof. Dieter Kempf as a financial expert in the field of auditing within the meaning of section 100(5) AktG. The required expertise of the Audit and Cybersecurity Committee members to be designated as financial experts is determined based on their respective resumés, which can be viewed online at www.gea.com under "About us – Our organization – Supervisory Board".

The Audit and Cybersecurity Committee also discusses the assessment of the audit risk, the audit strategy, audit planning and audit findings with the auditor, without the Executive Board. The Chairwoman of the Audit and Cybersecurity Committee regularly discusses the audit progress with the auditor and reports on this to the Committee.

Against the backdrop of GEA's endeavors to continuously develop new products, processes, services and business models and, in particular, to improve the sustainability of the product portfolio to capture new markets, the work of the Innovation and Product Sustainability Committee focuses on the assessment of the group's medium- to long-term innovation strategy, paying particular attention to sustainability aspects from a technical perspective. This includes addressing the key innovation areas of environmental sustainability, new food, digital solutions and modularization and configuration on the basis of the company's business strategy, as well as advising the Executive Board and the management on these topics. The members of the Innovation and Product Sustainability Committee are Prof. Dr. Jürgen Fleischer (Chairman), Roger Falk, Andreas Renschler and Brigitte Krönchen.

The Mediation Committee performs its duties as set out in sections 27 and 31 of the MitbestG. It has the following members: Prof. Dieter Kempf (Chairman), Claudia Claas, Prof. Dr. Jürgen Fleischer, and Rainer Gröbel. The task of the Nomination Committee is to propose suitable candidates to the Supervisory Board based upon which the latter submits its nominations to the Annual General Meeting. The members of the Nomination Committee are Prof. Dieter Kempf (Chairman), Prof. Dr. Annette G. Köhler and Dr. Jens Riedl.

Supervisory Board Qualification Matrix

In accordance with Recommendation C.1 of the German Corporate Governance Code (GCGC), the Supervisory Board has developed a profile of skills and expertise, the implementation of which is disclosed in the qualification matrix below:

	Prof. Dieter Kempf (Chairman)	Rainer Gröbel[1] (Deputy Chariman)	Nancy Böhning[1]	Claudia Claas[1]	Roger Falk[1]	Prof. Dr-Ing. Jürgen Fleischer	Michael Kämpfert[1]	Jörg Kampmeyer	Prof. Dr. Annette G. Köhler	Brigitte Krönchen[1]	Holly Lei	Andreas Renschler	Dr. Jens Riedl
Committee Membership	Presiding and Sustainability (Chairman) Audit and Cybersecurity Nomination (Chairman) Mediation (Chairman)	Presiding and Sustainability Mediation	None	Audit and Cybersecurity Mediation	Presiding and Sustainability Innovation and Product Sustainability	Innovation and Product Sustainability (Chairman) Mediation	None	Innovation and Product Sustainability	Audit and Cybersecurity (Chairwoman) Nomination	Audit and Cybersecurity Innovation and Product Sustainability	None	Innovation and Product Sustainability	Presiding and Sustainability Nomination
Diversity													
Age	70	70	44	58	56	62	58	55	57	60	63	65	50
Gender	male	male	female	female	male	male	male	male	female	female	female	male	male
Nationalitity	German	German	German	German	German	German	German	German	German	German	Canadian	German	German
Internat. background	•					•		•			•	•	•
Independence within the meaning of GCGC	•	not applicable[2]	not applicable[2]	not applicable[2]	not applicable[2]	•	not applicable[2]	•	•	not applicable[2]	•	•	•
Professional Background													
Education / Training	Dipl. Kaufmann (Degree in Business Administration) Certified tax advisor German public auditor	Industrie-kaufmann (Industrial management apprenticeship) Dipl. Volkswirt (Master of Economics)	Magistra Artium	Technical draughts woman	Industrie-kaufmann (Industrial management apprenticeship)	Dipl. Ing. Maschinenbau (Diploma in Mechanical Engineering)	Dipl. Betriebswirt (MBA)	Dipl. Ing. Maschinenbau (Diploma in Mechanical Engineering) Dipl. Wirt.-Ing. (Diploma in Industrial Engineering)	Dipl. Ökonomin (Diploma in Economics)	Industriekauffrau (Industrial management apprenticeship)	Degree in Chemical Engineering Degree in Materials Science	Dipl.-Wirtschafts-ingenieur (Diploma in Industrial Engineering) Dipl.-Kaufmann (Diploma in Business Administration)	Dipl. Kaufmann (Diploma in Business Administration)
Operational management experience	•	•				•	•	•			•	•	
Business Specific Expertise													
Sector expertise[3]	•	•	•	•	•	•	•	•	•	•	•	•	•
Industry expert[4]	•	•		•	•	•	•	•		•		•	•
Customer industry[5]											•		
Business model	•	•	•	•	•	•	•	•	•	•	•	•	•
Finance													
Accounting incl. NFS und NFS audits	•	•		•			•	•	•	•			•
Auditing incl. NFS and NFS audits	•							•	•				

	Prof. Dieter Kempf (Chairman)	Rainer Gröbel[1] (Deputy Chariman)	Nancy Böhning[1]	Claudia Claas[1]	Roger Falk[1]	Prof. Dr-Ing. Jürgen Fleischer	Michael Kämpfert[1]	Jörg Kampmeyer	Prof. Dr. Annette G. Köhler	Brigitte Krönchen[1]	Holly Lei	Andreas Renschler	Dr. Jens Riedl
Control Functions													
Risk management & internal control system	•	•		•			•	•	•	•			•
Internal audot	•								•				
Compliance management	•								•			•	
ESG													
Environment[6]						•		•			•		
Social aspects[7]		•	•	•	•		•	•		•	•		
Governance[8]	•	•	•	•	•		•		•	•	•	•	•
Digitalization / IT													
Digitalization / digital transformation	•			•	•	•		•		•		•	•
IT security	•												
Human Resources		•					•	•			•	•	
M&A								•				•	•
Research, Development and Innovation				•		•						•	

1) Employee representative
2) Criterion applies only to shareholder representatives
3) Sector = Mechanical and plant engineering in accordance with section 100(5) AktG
4) Individuals with relevant experience (employment or several years' association or supervisory board experience) in the capital goods industry
5) Individuals with relevant experience (employment or several years' association or supervisory board experience) in one of GEA's customer industries (food, beverage, pharma, dairy processing, dairy farming, chemicals)
6) Individuals with relevant experience in the environmental field (E). In particular, this includes experience related to reducing greenhouse gas emissions, energy consumption and responsible water and waste management, as well as the environmental impact of the products offered
7) Individuals with relevant experience in the social field (S). This especially includes experience related to how companies deal with employees, customers, suppliers and other persons in the company's social sphere, pertaining to areas such as working conditions and occupational health and safety
8) Individuals with relevant experience in the governance field (G). In particular, this includes experience with supervisory structures and employee co-determination, risk and reputation management, and ethical business conduct

Further information on the composition of the Supervisory Board and its committees can be found in the chapter “Corporate Bodies and their Mandates” under the heading “Supervisory Board” as well as on the company’s internet website (www.gea.com). In addition, the Report of the Supervisory Board in this Annual Report provides further details on the activities performed by the Supervisory Board and its committees in fiscal year 2023. It also discloses individual attendance at meetings held by the Supervisory Board and its committees, as well as the duration of the individual Supervisory Board members’ mandates.

Compliance with minimum quotas pursuant to section 96(2) of the AktG and commitment to promoting the participation of women in executive positions in accordance with section 76(4) and section 111(5) of the AktG

GEA tackles the diverse challenges posed by the highly international and, therefore, culturally highly varied environment through a strong focus on promoting diversity and inclusion (D&I). This is firmly anchored in the corporate values and threads through all elements of the employee life cycle. This is presented and explained in detail in the separate Sustainability Report. As part of the group-wide D&I concept introduced in 2021, GEA is also pursuing the goal of attracting more women to GEA at all levels and promoting female talent, especially in the technical field, among other objectives. The company aims to increase the representation of women on all management levels over the long term. GEA intends to increase the proportion of women at the top three management levels of the group to a total of 21 percent by 2026.

In addition to the targets contained in the D&I Concept, GEA is legally obliged to define targets in relation to the proportion of women represented on the Supervisory Board, the Executive Board and/or the Board of Directors at individual group companies as well as on the two management levels below, and to set target dates for achieving the respective quota of women.

A statutory minimum quota of 30 percent has applied with regard to the underrepresented gender on the supervisory boards of listed and co-determined companies like GEA Group Aktiengesellschaft, which must be taken into account when filling vacant Supervisory Board positions. Throughout the reporting period, the Supervisory Board was composed of five female and seven male members. Of the five female Supervisory Board members, three are employee representatives and two are shareholder representatives. The share of women on the Supervisory Board of GEA Group Aktiengesellschaft was around 42 percent in the past fiscal year.

At its meeting on December 16, 2021, the Supervisory Board set a new target for the share of women on the Executive Board of at least 25 percent, or one woman on the Executive Board, commencing January 1, 2023. This target is to be achieved by December 31, 2026.

In November 2022, the Executive Board of GEA Group Aktiengesellschaft set target quotas for the two management levels below the Executive Board level that are to be achieved by December 31, 2026, namely a 17.1 percent share of women on the first and a 21.0 percent proportion of women on the second management level. At present, the share of women on the first management level is 21.9 percent (as of 31 December 2023) and the proportion of women at the second management level is 16.5 percent (as of 31 December 2023). A further positive development was therefore recorded in fiscal year 2023. The proportion of women on the first management level already exceeded the target for 2026 in the past fiscal year. Although the share of women at the second management level declined slightly compared with the previous year, it is still close to the target level. Despite the persistent challenges related to the lack of availability of sufficient numbers of suitable internal and external candidates with the necessary personal and professional qualifications, the growth in the share of women at GEA was well on target. To continue promoting the representation of women, which is typically low in the mechanical and plant engineering sector in which the company operates, targeted consideration of all diversity aspects is to be increasingly factored into the existing talent programs at all management levels.

Targets for the other GEA entities affected by this law were also set in due time in relation to the proportion of women represented on the respective Supervisory Board and/or the Board of Directors as well as the two uppermost management levels below the Board of Directors, just like the corresponding deadlines for timely target implementation.

Succession planning and diversity concepts governing the composition of the Executive Board and the Supervisory Board

Together with the Executive Board, the Supervisory Board – with the support of the Presiding and Sustainability Committee – engages in long-term Executive Board succession planning. The selection process for Executive Board positions is subject to a structured standard procedure. The Presiding Committee first develops a specific profile for an Executive Board position, taking into account the personal and technical qualification criteria relevant to the position as well as the requirements of the German Corporate Governance Code. The group's senior executives are regularly assessed with regard to the extent to which they match the relevant job profile and their suitability to assume an Executive Board role. When seeking and selecting appropriate candidates to fill specific Executive Board positions based on these job profiles, the Presiding Committee generally also receives support from external advisers. Based on written candidate profiles, the Presiding Committee preselects candidates to be invited to interview. To enable all Supervisory Board members to form their own opinion about potential new Executive Board members, as a final step, the candidates shortlisted by the Presiding Committee are presented to the full Supervisory Board, which then decides on the appointment of the new Executive Board member.

When appointing members of the Executive Board, the Supervisory Board and its committees generally take into account not only balanced professional and personal qualifications but also the criterion of diversity, which takes into account numerous other aspects such as education, professional background, origin, and international experience, in addition to gender. In December 2021, the Supervisory Board addressed the topic of diversity along with the profile of skills and expertise required for the Executive Board and bundled the following important aspects in a concept for the composition of the Executive Board:

- The Executive Board should consist of at least 25 percent women by December 31, 2026, or at least one woman should be a member of the Executive Board by that date.
- As a whole, the Executive Board should have a sufficient level of international management experience.
- The age structure of the members of the Executive Board, who generally retire on reaching the age of 62, is intended to ensure continuity in the management of the Company.
- GEA strives to fill Executive Board positions with the best-qualified candidates, be they internal or external candidates.
- As a whole, the Executive Board should have sufficient industry knowledge related to the company's markets, customers, and technologies.

However, since the selection of Executive Board members ultimately comes down to aspects such as professional and personal suitability, while also including other aspects such as candidate availability, the Supervisory Board reserves the right to not comply with the requirements of this diversity concept in individual cases. The above requirements were taken into account in the decision to appoint Bernd Brinker, and were met, with the exception of the gender diversity requirement.

Most recently, at its meeting on December 7, 2023, the Supervisory Board also calibrated the diversity concept to its own composition, which included objectives for its composition and the profile of skills and expertise it intends for the body as a whole. Accordingly, the Supervisory Board members shall collectively have the knowledge, skills and professional expertise required to properly perform their duties in consideration of the company-specific situation. Aside from the integrity and commitment of its members, who must have sufficient time to exercise their respective mandate, the Supervisory Board also pays attention to a balanced profile of skills and expertise among its members, in particular sufficient industry and sector knowledge relevant to GEA Group Aktiengesellschaft, adequate coverage of the sustainability issues relevant to the company, an adequate number of independent members, international experience and diversity. With a view to the interests of the company, the decisive criterion for filling a position on the Supervisory Board shall in all cases be the professional and individual suitability and availability of male or female candidates while taking into account the skills and expertise of the other members of the Supervisory Board.

The Supervisory Board seeks to ensure a board composition that takes the following elements into consideration: the Supervisory Board shall be diverse in terms of the origin, professional and cultural background as well as the age and gender of its members. At least one quarter of the members of the Supervisory Board shall have an international business background that ideally covers various regions or cultural areas. Men and women shall each account for a minimum of one-third of the members of the Supervisory Board. On the shareholders' side, the Supervisory Board shall include what it deems to be an adequate number of independent members. For this reason, and in consideration of the shareholder structure, the Supervisory Board seeks to ensure that a minimum of two-thirds of the shareholder representatives are independent, in line with the definition given in Recommendation C.6 of the German Corporate Governance Code. At present, all six shareholder representatives on the Supervisory Board, namely Supervisory Board Chairman Prof. Dieter Kempf, Prof. Dr. Jürgen Fleischer, Dr. Jens Riedl, Andreas Renschler, Dr. Annette G. Köhler, and Holly Lei, are independent within the meaning of the German Corporate Governance Code.

As a rule, a member's uninterrupted service on the Supervisory Board shall not exceed three full terms of office and/or a period of 12 years. Generally, nominations shall only consider individuals who have not yet reached the age of 70 at the date of the Annual General Meeting that decides on the election of the proposed candidates. If it is foreseeable that individuals would be subject to permanent or repeated conflicts of interest in the event of their election to the Supervisory Board, such individuals shall not be considered as Supervisory Board candidates. Apart from that, the Rules of Procedure of the Supervisory Board provide for detailed rules and regulations governing the handling of conflicts of interest that may occur after a member is elected to the Board.

According to these regulations, each Supervisory Board member has the obligation to disclose potential conflicts of interest to the Chairman of the Supervisory Board. Conflicts of interest of a material and non-temporary nature in relation to a Supervisory Board member shall result in the termination of his/her mandate.

The competence profile the Supervisory Board seeks to establish for the entire body may be summarized as follows: All members of the Supervisory Board are to be familiar with the sector in which the company operates. At least one Audit and Cybersecurity Committee member must have expertise in the field of accounting, and at least one additional member must have expertise in the field of auditing. The required expertise in the field of accounting includes knowledge and experience in the application of accounting principles and internal control and risk management systems, in particular. Expertise in the field of auditing comprises knowledge and experience in auditing, in particular. In addition, the Chairman or Chairwoman of the Audit and Cybersecurity Committee must have expertise in at least one of the two fields (accounting or auditing). All members of the Supervisory Board shall be able to understand and assess the specific nature of the company's business as well as resulting risks and opportunities. They shall be familiar with the basic principles of accounting and risk management. The Supervisory Board shall comprise members with a commercial or business background, individuals from the engineering profession as well as, ideally, members with experience in one or several of the company's customer industries.

A minimum of two Supervisory Board members shall have management experience in operational business. At least one Supervisory Board member should have experience in mergers and acquisitions, particularly in the identification, valuation and acquisition and integration of appropriate target companies. Alongside the skills and expertise of the financial experts on the Audit and Cybersecurity Committee in relation to sustainability reporting and the relevant audits, at least two members of the Supervisory Board must have expertise and experience in other sustainability matters relevant to the company, such as sustainable product innovation and development, responsible production process design, supply chains or human resources. Furthermore, the Supervisory Board should have at least one member with knowledge and experience in the areas of digitalization and digital transformation. At least one member of the Supervisory Board should also have relevant experience in the areas of research, development, and innovation. One member of the Supervisory Board, ideally a member of the Audit and Cybersecurity Committee, should have expertise in IT security issues.

In its current composition, the Supervisory Board meets the target composition criteria and satisfies the competence profile criteria.

NON-FINANCIAL GROUP STATEMENT

Concerning non-financial reporting

Since fiscal year 2016, GEA has annually identified and validated topics relevant to understanding the company's economic, environmental and social impact. Alongside its internal perspective, the company also takes account of the expectations of its key stakeholders: investors, employees, customers and nongovernmental organizations.

The GEA Sustainability Report for fiscal year 2023 is published as a stand-alone report – in addition to this Annual Report – and is not subject to the statutory audit. GEA's Sustainability Report 2023 again follows the international standards set by the Global Reporting Initiative (GRI Standards).

The non-financial Group statement is prepared in accordance with sections 315b, 315c in conjunction with sections 289c to 289e of the Handelsgesetzbuch (HGB - German Commercial Code) as part of the Group management report. Beyond this, no legal frameworks are required and are therefore not taken as a basis.

In accordance with section 315c (1) in conjunction with section 289c (1) of the HGB, GEA's business model is described in the corresponding paragraph of the Group Management Report in the section "Fundamental Information about the Group." This also forms part of GEA's non-financial group statement.

Under section 315c in conjunction with section 289c (3) no. 3 and 4 of the HGB, GEA is required to report on all known material risks associated with its own business activities, business relations, as well as its products and services, where these are highly likely to have a severe adverse impact on non-financial aspects. No such risks have been ascertained.

At the request of GEA's Supervisory Board, KPMG AG Wirtschaftsprüfungsgesellschaft reviewed GEA's non-financial statement for fiscal year 2023 in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information" and, in addition, performed a limited assurance engagement. The indicators for energy and Scope 1 and 2 emissions were audited with reasonable assurance.

The subjects covered by non-financial reporting are based on an analysis of GEA's current management systems and the data provided by the operational units and competent departments in the Global Corporate Center. The GRI Content Index and disclosures on GEA's contribution to the UN's Sustainable Development Goals and the UN Global Compact, as well as to the Science Based Targets Initiative (SBTi), the TCFD Index (Task Force on Climate-related Financial Disclosures) and the SASB (Sustainable Accounting Standards Board) Index can be found in GEA's separately published Sustainability Report 2023, which is available at gea.com.

This non-financial group statement comprises the following sections:

- Sustainability at GEA
- Sustainable solutions
- Environmental protection
- Occupational health and safety
- Supply chain
- Employees
- Compliance and corporate governance
- Disclosures on the European Union Taxonomy Regulation

Sustainability at GEA

Sustainability at GEA is not only a guideline for day-to-day actions, it also has fundamental strategic significance. The company has set highly ambitious targets and intends to be the sustainability leader in its sector by 2026. For this reason, sustainability is a core component of the Mission 26 group strategy, which defines sustainability as one of the seven key levers to successfully achieving the company's future objectives. Sustainability considerations are also strongly embedded in the other areas of Mission 26, which underscores the preeminence of this topic and its major significance for GEA. During the reporting period, more of the Mission 26 measures presented in 2021 were implemented and, as in the previous year, further milestones were achieved.

> "Our commitment to sustainability is centered around our purpose "Engineering for a better world". It inspires us to take responsibility as a pioneer in our industry and to accelerate the change towards a more sustainable industry with innovative solutions."
>
> Stefan Klebert, CEO

GEA is acutely aware of its own corporate responsibility. As a multi-national company, GEA is willing and able to contribute to creating a better world. This is clearly expressed in its corporate purpose, “engineering for a better world.” GEA developed its vision based on this guiding principle: “We safeguard future generations by providing sustainable solutions for the nutrition and pharmaceutical industries.”

GEA’s sustainability strategy is based on the 17 Sustainable Development Goals (SDGs) of the United Nations (UN). The SDGs aim to ensure sustainable economic, social and environmental development worldwide. GEA is committed to the ten principles of the UN Global Compact (GC) and the seven United Nations’ Women’s Empowerment Principles (WEP). The GC is a global pact between companies and the UN that aims to ensure more socially and environmentally responsible globalization. The WEPs are a joint initiative of UN Women and Global Compact. GEA reports on its progress in this area in the GEA Sustainability Report 2023.

One of the climate targets in GEA’s climate strategy is to reduce the company’s own greenhouse gas emissions to Net Zero at all points of its value chain by 2040. This is GEAs most ambitious target. In 2021, GEA had its interim climate targets by 2030 validated by the SBTi. After positioning itself at the forefront of the industry, GEA tightened the ambitions once again in 2023 and increased the interim targets for 2030 and also set a short-term target to reduce greenhouse gas emissions from its own activities (Scope 1 and 2) by 2026 - in each case compared to 2019:

- Greenhouse gas emissions from own activities (Scope 1 and 2) will be reduced by 60 percent until 2026.
- By 2030, greenhouse gas emissions from Scope 1 and 2 will be reduced by 80 percent. GEA also increases its reduction target in Scope 3 from 18 percent to 27.5 percent by 2030.

The increased targets by 2030 and the Net Zero target for 2040 were validated by the SBTi in December 2023. The SBTi, a globally recognized independent initiative to verify climate goals, has thus confirmed that the interim goals are consistent with the latest understanding of climate science and make an effective contribution to achieving the goals of the Paris Agreement. GEA is committed to the twelve sustainability principles of the Blue Competence sustainability initiative of the German Mechanical Engineering Industry Association (VDMA) and has been a member of the econsense network since 2022.

In general, GEA’s business activities and industrial sector do not have a material impact on biodiversity. However, GEA considers biodiversity to be extremely important and aims to ensure that it is firmly anchored in all three pillars of its sustainability strategy. In line with this, GEA aims to obtain a complete picture of the positive and negative impacts of the company’s business activities on biodiversity and ecosystems by means of a comprehensive biodiversity analysis. The findings will enable GEA to design and evaluate possible measures to protect and restore biodiversity and ecosystems. Alongside the development of sustainable solutions and technologies, this also encompasses the responsible consumption of resources and using materials made from renewable resources, as well as taking social responsibility for the environment, biodiversity and ecosystems.

Ambitious targets

Closely aligned with its corporate purpose, GEA’s sustainability commitment is to develop sustainable solutions responsibly with great people for a better world. This commitment encompasses the key pillars of GEA’s sustainability strategy:

- Sustainable solutions: GEA develops environmentally friendly, sustainable solutions to support its customers’ climate and resource efficiency goals.
- Responsible operations: GEA fosters environmental excellence and the highest social standards in its own operations and purchasing practices.
- Great people: GEA is the employer of choice in the engineering industry and promotes diversity, equal rights and inclusion, lifelong learning and long-term career development.
- For a better world: GEA creates societal value through solutions aimed at reducing food and water scarcity as well as improving nutrition and health. The company actively contributes its knowledge and skills to support local communities.

To give concrete form to the above goals, GEA has defined a series of measurable targets for each area, which will guide its actions over the coming years.

GEA will measure its performance against the following concrete targets over the coming years:

Sustainable Solutions

- By 2030, greenhouse gas emissions throughout the products' entire value chain (Scope 3 emissions) are to be reduced by 27.5 percent compared with 2019.
- By 2030, GEA will make it possible for customers to operate machinery and plant without additional freshwater use.
- By 2030, GEA's packaging-related products will use sustainable packaging materials to enable GEA's customers to make a significant contribution to conserving raw materials.
- The packaging used for GEA products and service parts must meet one of the five Rs of the circular economy (reduce, reuse, repair, remanufacture, recycle) by 2026, leading to a significant reduction in GEA's resource consumption.

Responsible Operations

- By 2030, GEA is to reduce greenhouse gas emissions from its own operations (scope 1 and 2 emissions) by 80 percent compared to 2019. By 2026, emissions in scope 1 and 2 are to be reduced by 60 percent compared to 2019.
- At least half of GEA's total energy needs are to be covered by a certified energy management system by 2026.
- All sites in areas of water scarcity will have implemented a water strategy by 2026.
- The waste recovery rate will be more than 98 percent by 2026.
- All preferred suppliers will satisfy GEA's sustainability criteria by 2026 and 100 percent of A-suppliers by 2030.
- GEA has set itself the target of passing on industry-specific and function-specific knowledge to a total of 100,000 people through skills-based volunteering by 2026.
- GEA has set a target of donating one percent of its net-profit each year.

Employer of Choice

- By 2026, at least 80 percent of employees should recommend GEA as a good employer in the annual employee survey.
- GEA intends to increase the proportion of women at the top three management levels to 21 percent by 2026.
- 80 percent of vacancies at all management levels are to be filled with in-house talent by 2026.
- A talent pool to enhance diversity at all management levels will be established by 2026.

It can be read about the progress GEA has made towards achieving these goals in 2023 in the following chapters of the non-financial group statement and in the GEA Sustainability Report 2023.

Sustainability management

Sustainable corporate governance has been a major topic at GEA for many years. All sustainability-related activities have been brought together in a group-wide Sustainability department. This department acts as the interface between all business units and functions, thus forming the backbone for the group's sustainability strategy. This ensures that the increasingly complex demands on sustainability management are expertly handled. The Sustainability department, which is headed by the Chief Sustainability Officer (CSO), reports directly to the CEO. GEA's CSO has overall responsibility for sustainability issues and, therefore, the company's climate strategy. The Sustainability department develops all of the company's qualitative and quantitative sustainability targets; this includes providing communication and methodological support and evaluating the extent to which the targets have been achieved.

To ensure that sustainability aspects are factored into all of the company's decision-making, GEA's CSO was appointed to the Global Executive Committee (GEC). The GEC is GEA's extended management body, which comprises the Executive Board members, the heads of the divisions and sales regions, as well as the head of Human Resources. This decision underscores the strategic significance of sustainability for the company and GEA's commitment to drive sustainability forward across all of its divisions, business units and global functions. Each month, the GEC addresses strategic and operational matters, including topics related to sustainability, thereby setting the company's strategic orientation.

The Sustainability Team was expanded to further bolster GEA's sustainability activities. This expansion should help accelerate GEA's sustainability impact going forward and reflects the sustainability targets of the company at the organizational level. The Sustainability Team was joined by specialists as well as a Head of Sustainability for each GEA division, who report to their respective divisional CEO. The divisional Heads of Sustainability focus on translating the global sustainability targets into clear tasks that are appropriate for the relevant business area and ensure that sustainability aspects are factored into all company decisions made within the division. This facilitates a faster and better tailored implementation of the targets for the respective business area. The specialists address overarching sustainability issues with different focal points, such as risk management, sustainability-focused marketing, operations, finance, social engagement, the product portfolio, and global projects to transform GEA into a more sustainable company overall. In addition, the position of Head of Sustainable Operations, who reports directly to the COO, was created to advance issues such as “sustainable supply chain” and “sustainable logistics and distribution,” as well as the decarbonization of GEAs production sites, in particular.

The Executive Board tasked a cross-functional Sustainability Committee with addressing sustainability topics at GEA and actively involving the operating business areas in the implementation of sustainability measures. This includes strategic and operational decisions on the implementation of projects across divisions and functions. The committee acts as a central body for all sustainability issues in all business units and therefore acts as a link between the global functions, the divisions and the Executive Board. This ensures a coordinated approach to sustainability at all levels and accelerates the implementation process. The committee also makes it possible to take actions at short notice in the event of delays, which in turn are coordinated at all levels.

The Sustainability Committee is headed by the CSO, who reports directly to the Executive Board. The committee continuously comprises representatives from various areas, including the Divisional Heads of Sustainability, representatives from Human Resources, the Head of Sustainable Operations and employees from Investor Relations and IT. Other specialist departments can also be consulted if necessary. The committee meets regularly on a quarterly basis and on an ad hoc basis and has the following core responsibilities: reviewing and, if necessary, approving adjustments to the sustainability management system (processes, structures, content), such as adjusting the catalog of sustainability indicators. The committee is also responsible for the final coordination of initiatives and specific instructions for the relevant global functions, departments and top management regarding sustainability targets for release to the Executive Board and the extended executive team. The committee also prioritizes sustainability initiatives, sets budgets for them and assesses the progress of sustainability measures.

Sustainability principles

Sustainability management at GEA is based on the following principles, which are implemented on the basis of a variety of guidelines and processes (see chart):

1. Group-wide Code of Conduct

The GEA Code of Conduct outlines the values, principles and policies that guide GEA's corporate conduct. This Code of Conduct reflects the company's objective of ensuring group-wide compliance with standards while creating a work environment that rewards integrity, respect and fair and responsible conduct. The Code of Conduct applies to all employees and legal entities of GEA worldwide. This means that sustainability-oriented behavior is mandatory for all employees. This concerns topics such as human and workers' rights, diversity and inclusion in addition to human development and education. As a successful international engineering group with more than 18,000 employees and operating activities in 55 countries, GEA's commitment to international fair trade is a crucial factor in achieving global economic growth.

2. Code of Conduct for Suppliers and Subcontractors

Like the GEA Code of Conduct, the Code of Conduct for Suppliers and Subcontractors requires GEA's suppliers to engage in environmentally sound business practices, respect human rights and avoid trade in conflict resources. This Code of Conduct sets forth GEA's principles and requirements that are to be met by all suppliers of goods and services, subcontractors as well as the group entities of the suppliers and subcontractors with regard to their responsibility towards society, the environment and the individuals involved in the production of goods and/or the rendering of services. The Code of Conduct includes a reference to the "UK Slavery Act 2015", the Lieferkettensorgfaltspflichtengesetz (German Supply Chain Act) as well as more extensive regulations on environmental protection. In addition to data protection aspects, the Code of Conduct also addresses information security.

Basic principles

Code of Conduct
Code of Conduct for Suppliers and Subcontractors

Policies

- Policy Governance Policy
- Community Engagement Policy
- Sponsorship Policy
- Data Protection Policy
- Compliance (Integrity Policy, Third Party Policy, Competition Policy)
- Whistleblower Protection Policy
- Diversity and Inclusion Policy
- Information Security Policies
- Internal Audit Policy
- Environmental Responsibility Policy
- Biodiversity Commitment
- Occupational Health and Safety Policy
- Quality Policy
- Human Rights Policy
- Procurement Policy
- Global Packaging Policy
- Conflict Minerals Policy

Processes

- Processes for Compliance Approvals
- Process for Compliance Risk Assessment
- Documentation and evaluation of processing activities (data protection process)
- Data protection impact assessment (data protection processes)
- Vendor assessment
- IT system evaluation
- Data breach notification process (data protection process)
- Dealing with requests from affected persons (data protection process)
- Security and business continuity processes

Key sustainability themes

Each year, GEA identifies topics relevant to understanding the economic, environmental and social impact of the company's actions. Alongside its internal assessment and the Executive Board's assessment, the company also takes account of the expectations and interests of GEA's key external stakeholders. These include investors, customers, employees and independent bodies, such as non-governmental organizations. The involvement of different internal specialist departments ensures that due consideration is given to the respective views of external stakeholder groups. To ensure the non-financial group statement is prepared in accordance with the legal requirements (German CSR Directive Implementing Act, CSR-RUG) and, furthermore, to verify that the GEA Sustainability Report 2023 is prepared in accordance with the Global Reporting Initiative (GRI) guidelines, a thorough materiality analysis was conducted in 2021. Thirteen topics from the six areas below were defined as relevant within the meaning of the CSR-RUG. The continued relevance of the topics and areas were confirmed for the year under review:

- Sustainable solutions
- Environmental protection
- Occupational health and safety
- Supply chain
- Employees
- Compliance and corporate governance

Further information on these topics and other topics within the six areas can be found in the GEA Sustainability Report 2023.

GEA is currently preparing for the mandatory reporting under the Corporate Sustainability Reporting Directive (CSRD), including the requirement to implement the principle of double materiality in the materiality analysis, which is applicable for GEA from fiscal year 2024.

Management system certification

At GEA, quality management, environmental management, occupational health and safety, and energy management are based on international standards and supplemented by GEA-specific standards and regulations, such as the Environmental Responsibility Policy, Occupational Health and Safety Policy, Quality Policy, GEA Safety Core Rules, GEA Environmental Core Rules and globally applicable process descriptions. This framework policy, which was developed alongside QHSE experts at divisional and country level, is implemented in all GEA entities with the support of the global QHSE organizations. In total, GEA has 211 different ISO management system certificates.

In 2016, GEA began certifying its sites with integrated management systems. GEA Group Aktiengesellschaft, headquartered in Düsseldorf, is certified to ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 and thus leads the group in the number of certified sites. Part of the group's Mission 26 strategy is to certify all GEA production sites in accordance with the quality, environmental and occupational safety management systems. In the reporting period, a coverage rate of 71 percent was achieved for ISO 9001:2015, 58 percent for ISO 14001:2015 and 64 percent for ISO 45001:2018. Half of GEA's annual energy needs are to be covered by an ISO 50001:2018 certified energy management system by 2026. In 2023, 22.0 percent of the energy needs were covered by such a system. Unrelated to certification, environmental measures and projects and the measurement of energy consumption are bundled and performed in cooperation with the QHSE department.

Management Systems	Coverage rate 2023 (in %)	Number of certified Production sites 2023	Number of Production sites total*
DIN EN ISO 9001:2015	71	37	52
DIN EN ISO 14001:2015	58	30	52
DIN EN ISO 45001:2018	64	33	52
DIN EN ISO 50001:2018	8	4	52

*) Compared to the previous year, one location (N Weber Road, Romeoville, IL, USA) was no longer included (no production location), two locations were sold (Quinto di Treviso, Italy and Klimovsk, Russia), one location in Tianjin, China was not scheduled until 2024 due to relocation and two locations are currently not certified by TÜV due to the war of aggression in Russia.

ISO 9001 is the standard that specifies requirements for a quality management system. Organizations use the standard to demonstrate their ability to consistently provide products and services that meet customer and regulatory requirements. The standard also helps organizations to continually improve their quality management system.

ISO 14001 is the international standard that specifies requirements for an effective environmental management system (EMS). It is part of the ISO 14000 family of standards on environmental management.

ISO 45001 specifies requirements for an occupational health and safety (OH&S) management system and gives guidance for its use. It was published by the International Organization for Standardization in March 2018.

ISO 50001 specifies requirements for establishing an energy management system. The intended outcome is to allow an organization to continually improve its energy performance.

ESG Ratings und Rankings

The term "ESG" encompasses criteria from the environmental, social and governance fields.

DAX 50 ESG

GEA was among the top 50 companies in the HDAX to be included in the DAX 50 ESG Index thanks to its exemplary approach to environmental, social and corporate governance issues. Index membership is determined by the ESG rating awarded by the Sustainalytics rating agency, market capitalization, and stock market turnover.

Dow Jones Sustainability Indices

GEA has been included in the Dow Jones Sustainability Europe Index (DJSI Europe) since December 2022, and was included in the Dow Jones World Index (DJSI World) in December 2023. Companies are included in the indices based on the annual evaluation of the S&P[1] Global Corporate Sustainability Assessment. In 2023, more than 13,000 companies were invited to participate in the assessment. GEA significantly improved its score from 69 in 2022 to 75 out of 100 in 2023. Particularly strong results were achieved in the following categories: business ethics, information security/cybersecurity, resource efficiency and circularity (energy consumption), and water & climate strategy.

CDP

In early 2024, CDP (formerly: Carbon Disclosure Project) again awarded GEA for performance and reporting transparency, with an "A" grade for climate protection and an "A-" grade for water management. GEA is one of the 346 companies that made it onto the A list (climate protection) out of 21,000 companies surveyed worldwide. This rating puts GEA above both the European average (B) and the average for the Motorized Machinery sector (C) for climate protection and above the European average (C) and the average for the mentioned sector (C) for water management.

EcoVadis

In the EcoVadis sustainability assessment, GEA's "Gold Standard" rating was confirmed in the year under review. This achievement puts GEA among the top three percent of all companies in the mechanical engineering sector assessed worldwide. GEA has had its sustainability management reviewed in detail by the independent rating agency EcoVadis yearly since 2016 and has continuously improved its result. With 75 of 100 points in 2023, GEA has reached the Gold level. EcoVadis analyzes the sustainability performance of companies in the areas of environment, labor and human rights, ethics and sustainable procurement.

MSCI

In January 2024, GEA was placed in the "AAA" category in the MSCI ESG Rating Assessment of the U.S. financial services provider MSCI.

Further awards

Following the June 2023 index review, GEA remains a constituent of the FTSE4Good Index Series, which measures the performance of companies demonstrating strong environmental, social and governance (ESG) practices. In addition, in September 2022, GEA received "Prime Status" (leadership in its industry index group) in its ISS ESG Corporate Rating. ISS ESG provides services for institutional investors. In January 2024, GEA improved its ESG Risk Rating from 18.3 to 14.2 and was assessed by Sustainalytics to be at low risk of experiencing material financial impacts from ESG factors. The ESG Risk Rating places GEA in the second percentile (first percentile = lowest risk) in the machinery industry assessed by Sustainalytics. The lower the risk rating, the better. This puts GEA in 5th place out of a total of 436 companies assessed in the "Industrial Machinery" category. Sustainalytics, a Morningstar company, is a leading provider of analyses, ratings and data in the area of ESG.

Dow Jones Sustainability Europe Index	CDP	EcoVadis	MSCI[2]	ISS[3]	Sustainalytics[4]	FTSE Russell

1) S&P stands for Standard and Poor's. S&P Dow Jones Indices LLC is a joint venture between S&P Global, CME Group and News Corp.
2) In 2024, GEA Group Aktiengesellschaft was awarded an ESG rating of AAA (on a scale from AAA–CCC) by the MSCI. See link to the **MSCI Disclaimer Statement**.
3) ESG Corporate Rating | ISS (issgovernance.com)
4) This ("publication/article/paragraph") contains information prepared by Sustainalytics (www.sustainalytics.com). Such information and data are the property of Sustainalytics and/or its third party providers (third-party data) and is provided solely for information purposes. They do not constitute an endorsement of any product or project, or investment advice, and there is no guarantee that they are complete, timely, accurate or suitable for any particular purpose. Their use is subject to the conditions published at https://www.sustainalytics.com/legal-disclaimer

Sustainable solutions

GEA is one of the largest suppliers of systems and components to the food and pharmaceutical industries. Its portfolio includes machinery and plants, as well as process technology, components and comprehensive services. Many of its solutions help customers worldwide to make their production processes more sustainable and efficient. This is also reflected in its corporate purpose, “engineering for a better world.”

Alongside quality and product safety, the sustainability performance of GEA and its products is key in how GEA’s customers select their suppliers. Customers today expect GEA’s plants, machinery and components to contribute in improving their own sustainability performance goals, such as achieving carbon neutrality or reducing their environmental footprint. However, customers naturally also expect the machinery to facilitate efficient production over its entire lifespan. In 2023, GEA began labeling proprietary solutions that are significantly more efficient and environmentally friendly than their predecessors with its “Add Better” environmental label. The Add Better environmental label stands for resource-efficient solutions. The Add Better process complies with the ISO 14021 standard and has been validated by TÜV Rheinland. Each individual Add Better label is also reviewed by TÜV Rheinland, which means that it is independently validated, ensuring transparency. This validation, which is not mandatory, is carried out at GEA’s request.

GEA set the following sustainability targets in relation to their product development as part of the group’s Mission 26 strategy and achieved the following results during the year under review:

- By 2030, Scope 3 greenhouse gas emissions are to be reduced by 27.5 percent compared to 2019. The AddCool heat pump technology, for example, contributes to this by reducing both energy consumption and CO_2 emissions by up to 50 percent.
- By 2030, GEA will offer customers the option of “zero freshwater use” for the operation of systems and machinery. EcoSpin technology saves water thanks to the improved nozzle design, which makes it possible to achieve the same high disinfection performance with shorter rinsing times.
- By 2030, GEA’s packaging-related products will use sustainable packaging materials. The Liquid & Filling Business Unit has developed a packaging strategy for transitioning the entire machinery portfolio to sustainable packaging.
- The spare parts and the packaging material used for GEA products must meet one of the five Rs of the circular economy by 2026. For example, the Pharma Business Unit has developed a damping element sourced from used car tires for the NextGen Tablet Presses.

Product management

The theme of “sustainable solutions” is strategically managed at GEA by the Sustainability department. Operational implementation, i.e., the development of sustainable solutions, is the responsibility of the divisions in consultation with the Heads of Sustainability. They ensure that sustainability aspects are successfully integrated into both the product portfolio and business operations.

An overarching product development process concentrates on selected criteria in the course of sustainability projects. The development activities focus on energy and water consumption, material use and the circular economy. Where necessary, GEA therefore uses a trend-scouting process of “search – assess – observe,” which is focused on these sustainability sub-categories. The result of this trend process is a trend radar for sustainable technologies, markets and customer trends, which can be used by the divisions and business units to develop specific sustainable solutions. GEAs successful strategy for reducing raw materials, emissions or water consumption through the use of GEA products also involves GEAs partners in the supply chain. For this reason, GEA exchanges information with its suppliers on an ongoing basis.

Product development

GEA's product development process has four focal points, which reflect market and customer requirements:

Environmental Sustainability

New Food

Digital Solutions

Modularization & Configuration

Alongside product functionality and cost-effectiveness, sustainability aspects play a central role in product and process development. As decisions made during the development phase have a lasting impact well beyond company boundaries, they must be able to withstand critical scrutiny with regard to their sustainability criteria. Accordingly, GEA created a methodical basis according to which the circular economy is taken into consideration from the very beginning of the product development process. In 2024, the product development process will comply with the DIN EN 45560 standard making it possible to measure the circularity of product design in the development stage.

Sustainability criteria are already taken into account in the specification and concept phase of the development process. The main focus of the research and development activities related to sustainable solutions is achieving improved resource efficiency across the criteria of energy, water, greenhouse gas emissions and material consumption, and generating circular economy effects. For example, GEA always strives to integrate monofractioned material into the product development process so that its products are easier to recycle further down the line.

In addition to resource efficiency, the fixed development criteria include machinery safety to ensure user health and safety across the entire product life cycle. The targeted sustainability effects are ensured through key performance indicators, which indicate the sustainability parameters in product development and enable strategic monitoring.

Product responsibility

The divisions and business units are entrusted with the task of product responsibility. They control the development and continuation of their product portfolios based on the Mission 26 strategy. The potential risk of each plant, machine or component must be separately assessed in the installation, testing and operating phases. Avoiding the risks associated with mechanical, biological, chemical, electrical and auditory hazards is the primary task of a standardized machinery safety risk assessment under ISO 12100. The risk assessment is carried out as part of development and the required technical documentation. GEA uses FMEA (Failure Mode and Effects Analysis), which uncovers potential weaknesses and failures in a machine or a process, assesses the related risk and provides indications on how to avoid failures and minimize damage.

Product Safety Committees (PSCs) in the divisions evaluate and assess incidents involving GEA products that could result in or have already resulted in either a hazard to life and limb or resulted in damages for customers. The inter-disciplinary PSCs are tasked with initiating suitable measures to prevent and rectify product safety defects while minimizing GEA's legal and financial exposure. The committees gather and evaluate information about the use of the products throughout their life cycle.

GEA confirms the legal conformity of its products with certification marks, such as the CE mark, FDA Approval, or China Compulsory Certification (CCC). Information on the recycling and disposal of GEA products is also included in the relevant operating manuals. In special cases, further information is provided on GEA's websites and social media channels. This function is performed internally within the group via the intranet and social media service Viva Engage.

Life cycle analysis

In the context of Mission 26 and the sustainable solutions targets, life cycle analysis (LCAs) are an essential component of planning the targeted reduction of greenhouse gas emissions. To establish a reliable planning basis and set CO_2 targets, carbon life cycle assessments in accordance with the ISO 14040 standard are therefore also carried out for selected products. In the future, comprehensive LCAs will also be conducted in accordance with ISO 14067. Within the portfolio analysis, an LCA can also be carried out for a technology if required. In this case, the current life cycle phase of the solution is determined in order to initiate the relevant strategic measures to develop the technology.

Digitalization

GEA actively strengthened its innovative power in the year under review through digitalization. A cutting-edge, cloud-based infrastructure – the GEA Cloud® – forms the foundation for the industrial networking of more than 6,000 smart GEA machines and systems. Building on this, GEA Digital brought 13 new digital solutions to market in the year under review. These solutions improve products' availability, productivity and sustainability during their service life with customers. For example, the "Intellicant" digital solution for optimized decanter operation in the effluent treatment process significantly reduces waste volumes. Two digital solutions will meet the stringent criteria of GEA's Add Better environmental label, which is validated under ISO 14021, and contribute to reducing resource consumption substantially in the future. This is why more and more customers are choosing to use GEA's digital solutions.

Customer satisfaction

GEA conducts global customer satisfaction surveys on a regular basis. In general, this type of survey is carried out immediately after customers have been contacted for one of a variety of reasons, such as the completion of a business transaction or the delivery of spare parts. A standardized company-wide reporting dashboard makes it possible for both the group and the individual divisions to measure and analyze customer satisfaction globally and regionally. This enables GEA to respond to customer feedback and identify areas for improvement at an early stage. Customer satisfaction in the new machine business decreased slightly[1] in the reporting period – the corresponding Customer Satisfaction Score (CSS)[2] for the area was 78 percent (2022: 80 percent). The CSS for global customer satisfaction in service in 2023 was 78 percent (2022: 79 percent).

78%

Customer Satisfaction Score 2023 for new machine business global

78%

Customer Satisfaction Score 2023 for Service

1) There is less feedback in 2023 than in 2022. The proportion of critics/detractors has remained the same, but the proportion of ambassadors/promoters has decreased. This explains the decline in 2023.
2) The Customer Satisfaction Score indicates how satisfied a customer is with a product or service. The NPS is used as the basis for internal STI remuneration.

Examples of sustainable solutions

The new ECOSpin2 Zero sterilization technology for the aseptic filling of PET bottles is designed to save space as well as to reduce water and energy consumption. Installed as a new system, it uses up to 91 percent less water than its predecessor; as an upgrade to an existing system, it can reduce water usage by up to 83 percent. Operating the lowest peracetic acid (PAA), water and energy consumption of all previous generations of devices, ECOSpin2 Zero satisfies the current market demand for sustainability. The rinse time has been reduced from six seconds to just two for upgraded systems and to one second for new systems. The technology was awarded the Add Better label for exceptionally sustainable products.

One of GEA's strategic targets is for all packaging-related machinery and systems to be able to produce and process sustainable packaging by 2030. This requires a significant increase in packaging made from recycled materials. In light of this, GEA Procomac has already refreshed the portfolio with sustainable alternatives for the PET bottles widely used in aseptic filling. Based to a large extent on customer demand, machinery designed for recycled PET bottles and aluminum bottles has been developed. Other alternative packaging materials are also being researched. GEA aims to develop machinery that can sterilize and fill these bottles made from more sustainable materials as safely and reliably as bottles made from virgin materials.

Alongside the machinery and plant portfolio, GEA's "Design for Sustainability" principles also apply to service parts. These include both spare parts and packaging materials for GEA products. In the reporting period, the Separation Business Unit was already able to implement a circular economy strategy in accordance with the five Rs (reduce, re-use, repair, remanufacture and recycle) for 90 percent of all service parts. By 2026, all other business units will introduce the circular economy for spare parts and packaging materials. By implementing this circular approach, which extends product life cycles and conserves resources, GEA can improve its own and its customers' sustainability in a way that can be both monitored and measured. This puts GEA in a pioneering position in the mechanical and plant engineering sector. The initiative is also supported by the scientific community: GEA works with universities and participates in consortia projects, jointly developing and testing circular economy methods as part of a close cooperation between researchers and industry. Strategies, principles and new methods are developed, discussed and assessed based on case studies provided by the participating companies.

Further information on the topic of sustainable solutions can be found in the GEA Sustainability Report 2023.

Environmental protection

GEA takes its responsibility in the fight against climate change seriously and is committed to the Paris Climate Agreement of 2015. This extensive agreement stipulates that the global temperature increase in the atmosphere should be limited to well below 2 °C compared to pre-industrial levels and that additional efforts should be made to limit it to 1.5 °C. This has led to more stringent climate protection requirements, particularly with regard to greenhouse gas emissions. The industrial sector is also being called upon to significantly reduce its carbon footprint over the next few years.

But climate protection is also increasingly playing a role in companies' social acceptance. It is considered a core value that society demands from companies. As a multinational company, GEA takes its responsibility and has committed to ambitious sustainability goals as part of its corporate "Mission 26" strategy, which are described in more detail below.

In addition to important measures that are being introduced worldwide, all GEA employees will continue to be called upon to reduce energy consumption and thus not only save money, but also act in line with the company's sustainability strategy. As part of a global energy saving campaign, which enjoyed great success in the year under review, employees can contribute their ideas to inspire others and bring about sustainable change. Of the 166 ideas submitted, 92 will be followed up over the coming months.

In addition, the guideline that was already set in 2022 of reducing energy consumption by 20 percent per year at every site still applies.

Environmental and energy management

Environmental protection is integral to GEA's business strategy, as well as to its daily processes in consultation with business partners and other stakeholder groups. Responsibility for environmental management lies with the central QHSE department, which reports directly to the Chief Operating Officer (COO). Environmental indicators from all relevant GEA sites are compiled and centrally analyzed. The results are evaluated at regular intervals with the responsible parties for the divisions. They also coordinate the monitoring of target achievement. Energy management is decentralized to ensure regional legal requirements are met. The effectiveness of the existing management systems was confirmed through internal and external audits during the reporting period.

External audits

In 2023, the validity of the environmental management system according to ISO norm 14001 was externally audited across the group in the form of a matrix certification*. Ten external audits were carried out as part of this surveillance audit. In addition, eight first-time certifications were carried out at GEA production sites. It is planned that all production sites will be externally certified according to ISO 14001 by 2026. Currently, 30 production sites are already certified, which corresponds to a coverage rate of 57.7 percent.

ISO 50001 certification

By 2026, half of the annual energy needs of ten sites are to be controlled by a certified energy management system. Sites located in Oelde and Niederahr (Germany) and Eastleigh and Warminster (United Kingdom) are already certified according to ISO 50001. For the remaining sites (Berlin, Suzhou, Vadodara, Büchen, Drum-mondville, Kitzingen, and others), certification will follow in the coming years (see overview of certificates in the section "Sustainability at GEA"). In general: The company-wide target is to reduce electric energy consumption by 2 percent per year. In particular, the introduction of a digital solution in the form of hardware (measuring stations) and software will support the certification process by providing transparent, real-time data.

HSE Legal compliance audits

For the HSE legal compliance audits, GEA voluntarily engages an external service provider to check compliance with legal requirements in various areas such as environmental protection and occupational safety at site level. The goal is to have an audit performed at all production sites every three years. In the reporting period, 18 audits were conducted on environmental protection, fire protection and occupational safety.

*) In 2016, GEA decided on a matrix certification, which includes the global subsidiaries in the umbrella certificate of GEA Group Aktiengesellschaft (headquarters). This means that the integrated management system is based on uniform documentation. The advantage of a matrix certification is that a company does not have to be audited every year. A random audit at selected locations is sufficient to obtain or maintain the certificate for all companies. This process saves money and requires less effort. On average, each participant is audited once in the certification cycle.

Internal audits

In the environmental excellence audit, a catalog of questions is used to audit compliance with internal and external processes and environmental regulations (emissions, water, waste, etc.), as well as compliance with GEA standards. This internal audit, which is carried out in a three-year rolling process at all 52 production sites, was conducted at 17 sites in the year under review.

Energy demand and greenhouse gas emissions

In addition to the long-term goal of achieving Net Zero by 2040, GEA presented in 2023 the increased interim targets for reducing its own greenhouse gas emissions: By 2030, its Scope 1 and 2 greenhouse gas emissions are to be reduced by 80 percent and its Scope 3 emissions by 27.5 percent compared with the base year 2019. Already by 2026, emissions in Scope 1 and 2 are to be reduced by 60 percent compared to 2019. The Science Based Targets initiative (SBTi), a globally recognized independent initiative to verify climate goals, validated these reduction targets in 2023. The SBTi thus confirmed that GEA's interim goals as well as the Net Zero target until 2040 are consistent with the latest understanding of climate science and make an effective contribution to achieving the goals of the Paris Agreement.

GEA has recorded greenhouse gas emissions by region across scopes 1-3 since 2017. As of 2019, for countries in which energy suppliers can provide reliable fuel mix data, the company has reported the CO_2 equivalents (CO_2e[1]) calculated based on this data. In 2023, GEA recorded greenhouse gas emissions at 85[2] locations, including production sites, service branches and administrative offices.

Apart from market-based figures, the emissions data is in line with the conversion factors stated in the "GHG Protocol/IEA Version 17 (12/2022) – IEA 2020 Location based - NEW (IEA production mixes) (ID #3) – DEFRA 2023 updated data set". GEA sites report their energy consumption in the central performance reporting system, Sphera (SoFi), on a monthly basis. This system centrally calculates and checks the Scope 1 and 2 greenhouse gas emissions, which are published once a year in the GEA Sustainability Report.

1) CO_2 equivalent (CO_2e) is a unit of measurement used to standardize the climate impact of the various greenhouse gases (CO_2, methane, HFCs, N_2O, PFCs, NF3 and SF6) that are included in the overall data. Thus, GEA's methane emissions are also included in the CO_2 equivalents and count toward the emissions reduction target of 60 percent by 2030.
2) All sites with energy procurement and the associated billing.
3) This applies to all countries in which GEA operates worldwide.

At GEA, energy consumption figures for Scopes 1 and 2 are collected using the standardized system Sphera (SoFi) as well and reported with Scope 3 "Upstream and downstream greenhouse gas emissions" as follows:

- Scope 1: Direct GHG emissions calculated from the combustion of petroleum, various gases, wood pellets, diesel, kerosene and gasoline
- Scope 2: Indirect greenhouse gas emissions from the consumption of electricity, heat, steam and cooling energy
- Scope 3: Upstream and downstream greenhouse gas emissions from:
- Scope 3.1: Purchased products and services
- Scope 3.2: Capital goods
- Scope 3.3: Fuel and energy-related emissions
- Scope 3.4: Upstream transportation and distribution
- Scope 3.5: Waste generated in operations
- Scope 3.6: Greenhouse gas emissions from business travel
- Scope 3.7: Employee commuting
- Scope 3.8 – 3.10: not relevant to GEA
- Scope 3.11: Use of sold products
- Scope 3.12 – 3.15: not relevant to GEA

GEA's total energy consumption in the reporting period was 229,869 MWh. Thereof, 83,727 MWh are consumed as electric energy, of which 94.1 percent have been based on renewable energy sources and the remaining 5.9 percent have been generated by own Photovoltaic systems. Thus, all global electricity requirements[3] were covered by renewable energies in the reporting period. Total energy consumption decreased by 5.6 percent compared to 2022 (see Energy Consumption table).

Total CO_2e emissions (market-based) in scope 1 and 2 in 2023 were 31,725 metric tons, down 3.9 percent from the previous year (see Greenhouse Gas Emissions table). GEA is thus on track to achieving its target of reducing greenhouse gas emissions in Scopes 1 and 2 by 60 percent by 2026 and by 80 percent by 2030. Further information on energy saving measures can be found in the GEA Sustainability Report 2023.

Air emissions

Alongside to greenhouse gas emissions, other air pollutant emissions caused by GEA such as nitrogen oxides (NO_x), sulfur oxides (SO_x), particulate matter (PM 10 & PM 2.5), carbon monoxide (CO), black carbon (BC) and volatile organic compounds (VOCs) (see table air emissions) are generated through the burning of fossil fuels as well as during the combustion of fuels by the GEA fleet. Internal assessment of these air pollutant emissions is carried out in accordance with the guidelines provided in “A Practical Guide for Business: Air Pollutant Emission Assessment,” produced by the Climate and Clean Air Coalition (CCAC) and the Stockholm Environmental Institute (SEI) in 2022.

The already determined greenhouse gas emissions will be used as a basis for calculating the air pollutant emissions in 2023.

The emission factors for emissions from stationary sources are presented in the CCAC and SEI guide (table 4.6), which shows the emission factors for the respective category of fuel used. The emission factors for emissions caused by GEA are taken from the European Environment Agency (EEA) Guidebook based on tier 1 factors (table 3.3, 3.5–3.11 and 3.14 for SO2). GEA uses Table 4.4 to calculate electrical emissions. Scope 2 emissions are primarily caused by purchased electricity and outsourced heating demand.

The emission factors differ according to the category of the primary fuel used to generate the electricity and heat. The regional IEA energy mix was therefore used to determine the primary fuel in the different regions. This was then taken into account in the calculation, as follows:

- APAC: Brown and hard coal
- DACH: Natural gas
- LAM: Natural gas
- NAM: Natural gas
- NCE: Natural gas
- WEMEA: Natural gas

In Central and South America, hydropower is the main source of electricity. Since this is a green energy, the second most significant fuel – natural gas – is considered as the primary fuel. In the OECD region, nuclear power is in first place, with a share of 20.7 percent, while natural gas accounts for 20.6 percent. Since no factors for nuclear power are provided in the CCAC and SEI guide, natural gas is considered as the primary fuel.

Water

Responsible use of water is an integral part of the group-wide commitment to sustainability and is described in the environmental responsibility policy. The goal is to reduce the local negative impact of water consumption. For example, GEA sites in regions in the “Extremely high risk” category for water scarcity must develop and implement a water strategy until 2026. An ongoing target is to continuously reduce water consumption by 2.1 percent per FTE* year-on-year at 83 sites, which include production facilities, service organizations and administrative offices, and to increase the proportion of treated water.

The Business Excellence and Performance Management department records water data at 83* sites. It represents a full coverage rate of production sites. Moreover, water consumption data is also collected at GEA service organizations, GEA repair shops, GEA sanitation plants, GEA sites with ISO 14001-certified management systems as well as offices and warehouses with a significant environmental impact. This includes water consumption data based on the amount of water drawn from the communal network and groundwater from the company’s own wells, as well as the volume of wastewater.

GEA’s water intensity is relatively low at around 17 cubic meters (m^3) per year per employee. In 2023, GEA recorded the water drawn from the communal supply and ground wells in addition to wastewater at 83 sites (2022: 84), which includes production sites, service organizations and administrative offices (see Water table). Overall, water consumption decreased by 9,061 m^3 compared to the previous year.

*) All sites with water withdrawal agreements

To achieve the reduction target, two sites in India treat more than 17,105 m^3 of effluent per year themselves and re-use it for cleaning processes and watering green areas. This corresponds to a water treatment rate of 6.2 percent. There are plans to treat effluent on-site at other locations in the future. Three sites also collect rainwater for watering green spaces. The effluent generated at the sites is primarily discharged into the local public sewer systems.

Waste

GEA uses systematic waste management to keep material consumption and disposal volumes at the lowest possible level. Waste separation, economical recycling/recovery processes and the increasing use of secondary raw materials at individual, selected locations contribute to this effort. The target set in 2021 of achieving a waste recycling recovery rate of 95 percent by 2026 is followed and proceeded as planned. In 2023, a recovery rate of 93.4 percent has been achieved[1]. The long-term target is 100 percent. Another target is to reduce the amount of waste by 2.1 percent per FTE per year in relation to the number of employees.

In 2023, GEA recorded waste volumes at 68 sites[2] (2022: 72), which include production sites, service organizations and administrative offices (see Waste table). It represents a full coverage rate of production sites. The recorded waste volumes include communal and hazardous waste as well as recyclable residuals. In total, waste volumes in the reporting period amounted to 13,089 metric tons. The absolute volume of waste thus decreased by 2.6 percent compared with the previous year.

6.8 percent of the total waste volume (896 metric tons) consisted of halogen-free machining emulsions and solutions as well as aqueous rinsing liquids. These substances are classified as hazardous waste. However, they are necessary for certain production processes and therefore cannot be reduced or replaced at present. Nevertheless, GEA carries out substitution tests in line with the legal requirements. This involves analyzing whether the relevant substances can be replaced by less hazardous alternatives or whether their use can be completely or partially avoided by changing production processes.

Hazardous waste is collected and processed by approved specialist companies on behalf of GEA. These specialized companies are subject to strict legal requirements within the European Union. The regulations in Germany are based on the Circular Economy Act (KrWG) and are intended to guarantee that environmental and health protection are reliably safeguarded.

Further information on the topic of environmental protection can be found in the “Supply Chain” chapter as well as in the GEA Sustainability Report 2023.

Energy:
Energy consumption and greenhouse gases

Air emissions:
NMVOC emissions, NO_x emissions, SO_x emissions

Water:
Water consumption (Water abstraction minus water water) and information on water scarcity

Waste:
Waste generation and waste recovery rate

1) New reporting factories in e.g. US influenced the recovery rate
2) All sites with a specific waste disposal contract (not public waste collection)

Key performance indicators

Energy consumption

in MWh	2023	2022	Change compared to previous year in %
Total energy consumption	229,869	243,498	-5.6
thereof electricity	83,727	90,825	-7.8
thereof self-generated electricity from photovoltaics	4,963	2,852	74.0
thereof electricity from renewable energies	78,764	87,973	-10.5
thereof electricity from non-renewable energies	–	–	
thereof district heating	4,766	4,253	12.1
thereof natural gas	99,567	108,026	-7.8
thereof heating oil	1,956	2,251	-13.1
thereof others[1]	39,853	38,143	4.5
Number of reporting sites	85	85	
Energy intensity (ratio MWh to EUR 1 million revenue)	42.8	47.1	-9.2
Tons of CO_2e per MWh	0.14	0.14	0.3[2]

1) Fossil fuels such as Diesel, gasoline, kerosene.
2) 2022: 135.6 kg / MWh. 2023: 138.0 kg / MWh.

Greenhouse gas emissions[1]

in t CO_2e	2023	2022	Change to previous year in %	Change to base 2019 in %
Scope 1: Direct greenhouse gas emissions	30,869	32,292	-4.4	-13.2
Scope 2: Indirect greenhouse gas emissions[2]	856	726	17.9	-97.3
Scope 1 and 2 greenhouse gas emissions total[2]	**31,725**	**33,018**	**-3.9**	**-53.0**
Scope 3.1: Purchased products and services[3]	1,229,447	1,220,912	0.7	-1.0
Scope 3.2: Capital goods[3]	50,174	17,764	182.4	183.6
Scope 3.3: Fuel and energy-related emissions (not in Scope 1 and Scope 2)	14,032	15,089	-7.0	4.1
Scope 3.4: transportation and distribution (upstream)[3]	162,664	109,493	48.6	39.2
Scope 3.5: Waste	1,129	906	24.6	3.7
Scope 3.6: Business travel[4]	15,392	12,464	23.5	-16.4
Scope 3.7: Employee commuting[5]	6,041	6,261	-3.5	-39.8
Scope 3.11: Use of sold products[6,7]	27,820,028	45,342,680	-38.6	-23.3
Scope 3: Total upstream greenhouse gas emissions	1,478,879	1,382,889	6.9	4.2
Scope 3: Total downstream greenhouse gas emissions	27,820,028	45,342,680	-38.6	-23.3
Scope 3: Total greenhouse gas emissions	**29,298,907**	**46,725,569**	**-37.3**	**-22.2**
Scope 1 -3 total	**29,330,632**	**46,758,587**	**-37.3**	**-22.3**

1) Greenhouse gas emissions were calculated using the UK DEFRA 2019 to 2023 emission factors, where applicable.
2) Market-based emissions according to GHG Protocol Scope 2 guidance. Where no contract-specific emission factors were available, the Location based - NEW (IEA production mixes) (ID #3)- DEFRA 2023 Updated IEA 2022 emission factors were used. Scope 1 and 2 emissions calculated using the location-based method: 58,918 t CO_2e in 2023.
3) Emissions were calculated using a recognized input-output model, which is not subject to the limited assurance engagement of KPMG AG Wirtschaftsprüfungsgesellschaft. Based on a global impact analysis of sectoral and international supply chains, direct and indirect effects of corporate activities along the supply chain were determined, including the CO_2 emissions. GEA strives to continuously improve the accuracy of its CO_2 emissions calculation. As part of this, GEA updated and expanded the product taxonomy in the reporting year. The shift of purchasing volumes from Scope 3.1 to 3.2 has led to a sharp increase in reported Scope 3.2 emissions compared to the previous year. The updated allocation of emissions within the Logistics division has led to an increase in Scope 3.4 emissions.
4) Global air travel; rental cars for Europe and USA; travel by German rail estimated based on 2021. No Radiative Forcing Index is used
5) The calculation of the CO_2 emissions from employee commuting is done globally on a yearly basis by Business Excellence and Performance Management team, using the average FTE numbers from HR. The assumed share of commuting type is: Car - 69 % (68%), Public Transportation - 14 %, by Foot - 7 %, Bicycle - 11 %. An average commuting distance of 17.2 km and an office work rate of 70 % are assumed. Emission factors for Petrol, Diesel, local bus, light rail & tram (kg CO_2e/km) are used from DEFRA.
6) The Scope 3.11 emissions are based on the expected lifetime, the yearly runtime, the direct electricity, natural gas usage and refrigerant leakages and their respective emission factors of the products (not accounting for the electricity and natural gas used to generate the steam, the vacuum and the pressured air used by the products); these shall be based on assumptions and estimates by the product engineers and shall be reviewed by the product engineers of all divisions regularly. For the emissions of the use phase (3.11), an average service life of 20 years was assumed for GEA machinery and equipment in 2023. Emissions calculated through direct consumption data with a coverage rate of 100 % for 2023. In the reporting year, GEA increased the calculation of Scope 3 emissions from 80 % to 100 % of product emissions, thus enabling maximum transparency. The historical figures have also been adjusted to make progress measurable; this includes the 2022 figure. The 2019 figure is 36,258,456 t CO_2e.
7) The reduction in emissions in 2023 compared to 2022 is mainly due to the decrease in units sold in some business units - mainly due to the lower order intake in the chemical business in LPT-APAC. As chemical applications have high energy consumption, especially many spray dryers sold for lithium refining/production in China, more so in 2021 and 2022 than 2023, this will also lead to a reduction in carbon emissions as reported for the period.

Air emissions

in t	2023	2022	2021	Change compared to previous year in %[1]
NMVOC (non-methane volatile organic compounds)	52	44	44	18.2
NO_x (total nitrogen oxides)	210	221	224	-5.0
SO_x (total sulphur oxides)	134	174	187	-23.0
PM10 (particulate matter)	2	2	3	-11.4
PM2.5 (particulate matter)	8	9	9	-7.5
BC (black carbon, % of PM2.5)	4	4	4	-7.3
CO (carbon monoxide)	355	298	256	19.1

1) The figures for 2021 and 2022 and the changes compared to the previous year are not part of the audit by KPMG.

Water

in m^3	2023	2022	Change compared to previous year in %
Water withdrawal total	316,618	347,972	-9.0
thereof municipal water	263,322	289,566	-9.1
thereof groundwater	53,296	58,406	-8.7
Water discharge total	275,470	297,761	-7.5
thereof municipal waste water	251,908	283,193	-11.0
thereof wastewater treatment on site	23,562	14,568	61.7
Water consumption total[1]	41,149	50,210	-18.0
Ratio of water consumption to water withdrawal (in %)	13.0	14.4	-9.8
Number of reporting sites[2]	83	84	-1.2
Water intensity (ratio m^3 to EUR 1 million revenue)	58.9	67.4	-12.6
Water intensity (ratio m^3 to 1 FTE)	17.0	19.2	-11.5

1) Total net fresh water consumption is composed by: Municipal water + Fresh ground water - Water returned to the source of extraction.
2) Decrease in the number of sites due to the sale of operations and site relocations.

Waste

in t	2023	2022	Change compared to previous year in %
Waste generation total[1]	**13,089**	13,437	**-2.6**
thereof hazardous waste	**896**	904	-0.9
thereof non-hazardous waste	**12,193**	12,533	-2.7
Waste directed to disposal. non-hazardous[1]	**1,705**	1,391	22.6
thereof landfill	**829**	536	54.7
thereof incineration with energy recovery	**855**	847	0.9
thereof incineration without energy recovery	**21**	8	162.5
thereof other disposal operations[1]	**–**	–	–
Waste directed to disposal. hazardous[1]	**896**	904	-0.9
thereof landfill	**–**	–	–
thereof incineration with energy recovery	**–**	–	–
thereof incineration without energy recovery	**–**	–	–
thereof other disposal operations[1,2]	**896**	904	-0.9
Waste diverted from disposal. non-hazardous	**10,488**	11,142	-5.9
thereof preparation for re-use	**–**	–	–
thereof recycling	**10,488**	11,142	-5.9
thereof other recovery operations	**–**	–	–
Waste recovery rate (in %)[3]	**93.4**	96.0	-2.6
Recycling rate (in %)	**80.1**	82.9	-3.4
Number of reporting sites[4]	**68**	72	-5.6

1) Treatment off-site
2) Treatment of halogen-free machining emulsions and solutions and aqueous rinsing liquids.
3) Waste recovery rate = (Recycling plus incineration of non-hazardous waste directed to disposal with energy recovery plus other recovery operations of non-hazardous waste diverted from disposal) / Waste generation total. New reporting factories in e.g. US influenced the recovery rate.
4) Decrease in the number of sites due to the sale of operations and site relocations.

Occupational health and safety

The health and safety of employees, contractors and service providers is of paramount importance to the company. The goal is to avoid all types of accidents and illnesses through preventive measures. Consequently, the area of occupational health and safety is constantly evolving. Alongside a safe workplace, physical well-being is an essential factor in performing professional duties. GEA therefore creates a safe work environment for all employees, contractors and service providers. After all, a strong occupational safety culture also contributes to better performance for the company as a whole.

To achieve its “zero accidents” target, GEA protects all of its employees and contractors regardless of where they work. Contracts with customers, suppliers and subcontractors are always entered into in accordance with the respective safety standards of the contracting parties. If the standards of the contractual partner exceed those of GEA, the higher standards also apply to GEA’s employees. Contracts include corresponding requirements on occupational health and safety as well as related procedures. Occupational health and safety is directly related to the 2030 Agenda – the United Nations Sustainable Development Goals (SDGs No. 3 “Good health and well-being” and No. 8 “Decent work and economic growth”).

Occupational health and safety management

The company uses a central occupational health and safety management system to identify hazards and risks that can lead to occupational accidents and work-related illnesses, which management aims to permanently eliminate through the application of systematic processes. The occupational safety management system of GEA Group Aktiengesellschaft is certified in accordance with ISO 45001. In addition to the central QHSE unit, GEA also has other local QHSE units at various levels: Divisions, regions, countries and companies. The primary objective is to ensure a safe and healthy work environment for all employees and to comply with legal requirements and GEA occupational safety standards. In addition, GEA has a central crisis management system.

Depending on its size, a site may have several people responsible for occupational health and safety, or one employee may be responsible for several small sites. These employees are appointed by the GEA entities in accordance with the legal requirements in the relevant country and generally function as the HSE managers for the respective entity. In Germany, for example, HSE managers are occupational safety specialists. The Executive Board receives frequent updates from the QHSE unit regarding health and occupational safety risks.

GEA’s occupational safety principles are governed by the “Occupational Health and Safety Policy,” which entered into force in 2023. This replaces the relevant provisions of the old “Quality, Health Safety & Environment (QHSE) Policy.” The GEA Safety Core Rules form the core of GEA’s occupational safety standards. The “SafetyByChoice” campaign was launched in the year under review to propagate a culture of safety and reduce the number of accidents. This campaign calls on all employees to make occupational safety an integral part of their everyday work through measures such as proactively reporting risk situations, as well as by demonstrating safe conduct and minimizing risk by adhering to GEA’s safety guidelines. All of the associated measures – for example, regular occupational safety training and qualification courses, and regularly assessing the effectiveness of the required safety and protective measures – are governed by the health, safety and environment policy, “HSE Responsibilities of GEA Managers and Employees,” which entered into force in 2023. Occupational safety management reviews take place through occupational safety audits and regular updates and adjustments to risk assessments. The Executive Board receives periodical updates regarding audit results. Occupational health care is provided in accordance with national requirements.

Measures and results

GEA systematically records the main causes of work-related incidents (accidents), the nature of the injuries sustained, as well as the place on the body where the injuries are sustained and any additional information regarding the incident. The precise level of detail facilitates analysis, particularly with regard to accident black spots and causes. The GEA Safety Core Rules apply worldwide at GEA and represent the minimum standard for occupational health and safety. They are available in the GEA learning center in 14 languages in the form of online training courses and videos. As part of an internal communications campaign, the technical design was reviewed in 2023 and then presented to all employees in the form of brochures, videos and quizzes, for example. GEA employees and temporary workers receive regular instruction and training on work-related health and safety aspects through measures such as occupational health and safety campaigns.

External companies are informed about the GEA standards and briefed about them before embarking on their activity. For certain activities or tools that carry potential risks, such as working at height or with forklifts, GEA offers country-specific training courses on health and safety at work that comply with regulations in the respective jurisdiction. Such training courses are the responsibility of the managing directors and site management. To this end, more than 70 uniform minimum standards for safe conduct and work processes (safe systems of work) must be observed in the GEA entities worldwide. These safe systems of work were revised in 2023 as part of the “SafetyByChoice” campaign to better reach employees and further raise their awareness of occupational health and safety. As part of the campaign, information posters were designed for the sites to present the relevant rules for safe working in a clear and simple format. In order to assess compliance with its occupational safety standards and to help develop safety protocols, GEA conducts centrally organized external and internal occupational health and safety audits in its entities on a regular basis.

External HSE compliance audits are conducted every three years at all GEA production sites as well as at the major service workshops and test center sites. In the year under review, 18 such audits were conducted. External audits of occupational health and safety management systems in accordance with ISO 45001 take place at least every three years at the certified sites (2023: 9). Internal HSE excellence audits periodically review GEA standards and ISO certification requirements (2023: 17).

Serious incidents such as fatal and severe accidents, fires and explosions as well as environmental and security incidents are reported to the Executive Board and divisional management by means of the Serious Events Reporting System. This also applies to events affecting employees of external companies when they perform work for GEA. This makes it possible to react very quickly to severe incidents, minimize any potential impacts and investigate incidents in a timely manner. Post incident, a dedicated lessons-learned process begins with the aim of avoiding similar incidents in other areas, identifying measures for improvement and communicating them to the organization. The Serious Events Reporting System also includes incidents related to GEA products and equipment. Such incidents are recorded and analyzed even if the incident was not caused by a GEA product or equipment. All GEA sites are required to develop internal emergency response plans and regularly test their effectiveness.

The safety of its own workforce is just as important to GEA as that of its subcontractors. Occupational safety is an integral part of the supplier terms and conditions, which are specified in the GEA Code of Conduct for Suppliers and Subcontractors. It is also a core element of GEA’s supplier screening and regularly scheduled supplier audits. Serious accidents and other incidents affecting employees of subcontractors, for example on construction sites or in GEA plants, are already being recorded via the Serious Event Reporting System for several years. In addition, starting in 2023, all lost-time accidents involving subcontractor employees related to activities for GEA are recorded. This makes it possible to more accurately evaluate subcontractor performance in the area of occupational safety and to ensure that they meet GEA’s safety standards.

To achieve the long-term target of zero accidents, the precautionary principle is consistently applied in the field of occupational health and safety. Since 2017, GEA has therefore also recorded and analyzed close calls worldwide to detect potential risks and hazards early on and prevent potential accidents. In the same way as actual accidents, close calls are systematically analyzed and a follow-up process with defined responsibilities and defined measures is initiated. This process is highly appreciated by employees. Compared with the previous year, more close calls and unsafe situations were reported. An indication that risk awareness is increasing.

The number of accidents increased by 10.2 percent compared with the previous year (see table “Occupational safety figures”). With a slightly increased number of hours worked, GEA recorded a slightly higher accident frequency rate of 5.14 in 2023 (previous year: 4.98) (see graphic “Accident frequency rate”). 217 accidents were reported (previous year: 197). No lost-time accidents were recorded at 221 sites, which is equal to 75 percent of the covered GEA sites (previous year: 74 percent). Regrettably, one fatal accident at work occurred in 2023: a traffic accident involving a GEA employee in China. No fatal accidents at work were reported by our subcontractors. The accident severity rate* increased by 17 percent in the reporting period, with 119 days lost due to accidents per million hours worked (previous year: 101). The rate of other incidents increased to 509 (previous year: 317). This corresponds to an increase of 61 percent. This development should be viewed as positive, as measures introduced to remedy unsafe situations or actions can then in turn contribute to accident prevention.

*) Number of days lost multiplied by 1 million divided by hours worked

Targets

GEA targets a continuous reduction in the number of workplace accidents. By 2026, GEA aims to reduce the frequency and severity of accidents by ten percent per year compared with the previous year. The target is for the number of reports regarding other incidents (e.g., unsafe situations, unsafe practices, close calls) to increase by 20 percent per year, particularly in light of GEA’s stronger focus on proactive risk and hazard prevention. This target was met in the reporting year for the rate of other incidents. The accident frequency rate and the accident severity rate, on the other hand, were above the set target. Consequently, the Executive Board has called on the entire workforce to contribute to further developing a proactive safety culture. Reporting hazardous situations, modeling safe conduct, and minimizing risks by following GEA’s safety guidelines are positive measures to which all employees can contribute. The long-term target is always to achieve zero accidents. Therefore, a health and safety risk assessment is generally carried out as part of the due diligence processes for potential new business areas or projects. An additional target is for all 52 production sites to be certified according to an ISO 45001 certified management system by 2026. Currently, around 64 percent of the sites have such a management system.

Further information on occupational health and safety can be found in the GEA Sustainability Report 2023.

Key performance indicators

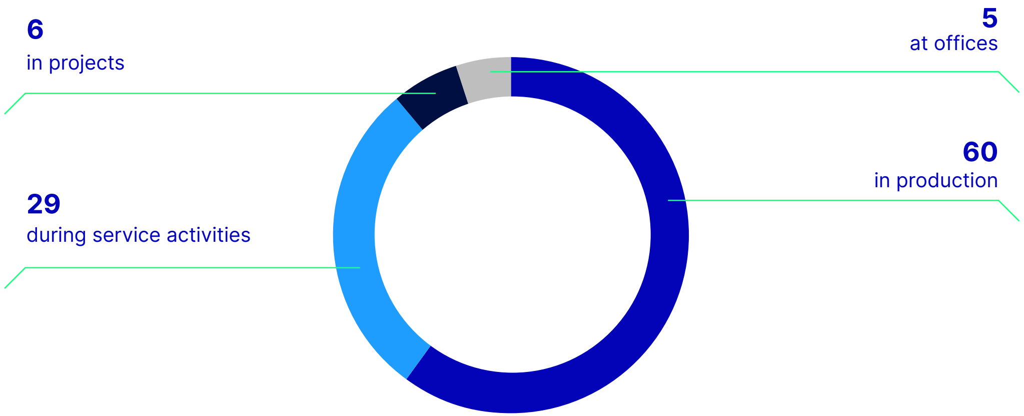
Work safety numbers[1] Per million hours worked	2023	2022
Lost Time Injuries[3]	217	197[2]
Accidents with sequence of death	1	1
Lost Time[4]	5,008	3,986
Lost Time Injury Frequency Rate[5]	5.14	4.98
Lost Time Injury Severity Rate[6]	119	101
Proactive Incident Rate[7]	509	317
Total Recordable Injury Frequency Rate[8]	**27.51**	**31.96**
Sites without occupational accidents with downtime, in percentage of all sites	75	74

1) Accidents and incidents are to be reported for all: GEA Employees, temporary employees, students/interns, trainees. Data is recorded manually and decentrally.
2) The 2022 numbers have not been adjusted.
3) The number of work-related injuries with ≥ 1 day of lost time.
4) Lost Days (full calendar days, without the day of the accident). GEA is counting Lost Days up to 182 days in accordance with the European Statistics on Accidents at Work (ESAW) since 2018.
5) The number of lost time injuries x 1,000,000 divided by the number of working hours in reporting period.
6) The number of lost days x 1,000,000 divided by the of working hours in reporting period.
7) The number of other incidents (e.g. unsafe situations, unsafe acts, near misses) x 1,000,000 divided by the number of working hours in reporting period.
8) The sum of lost time injuries without lost time x 1,000,000 divided by the number of hours in reporting period.

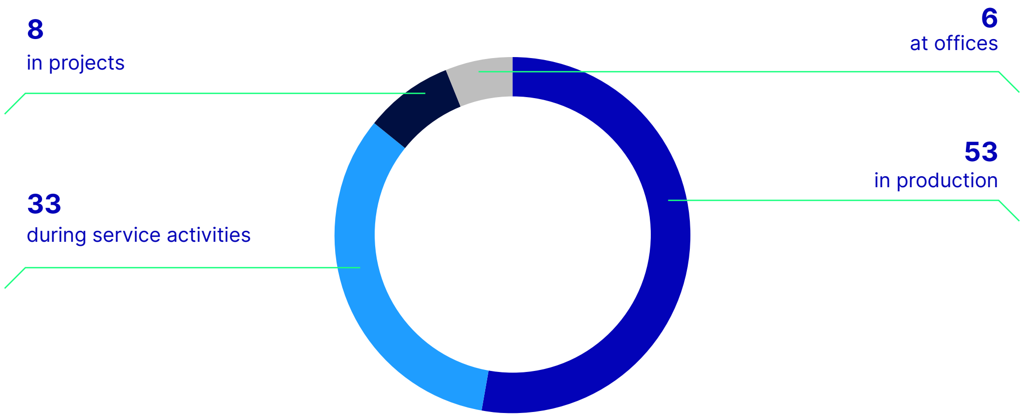
Lost time injury frequency rate

Accidents with period of absence per million hours worked

Worksite accidents by place of activity
(in %)



Lost time by place of activity
(in %)



Supply Chain

GEA's success is also highly dependent on the performance of suppliers, but economic performance is not the only thing that counts. GEA primarily wants to work with companies that are committed to greater sustainability in economic as well as ethical, social and ecological terms at all points in the value creation process. This centers on one question in particular: What are the working conditions and environmental impact involved in offering services, obtaining raw materials and the manufacture and sale of products? Critical investors, customers, employees, applicants and, not least, the general public want companies to tell them how sustainable their supply chains are and whether they meet their duty of care with regard to human rights, in line with the United Nations Guiding Principles on Business and Human Rights as well as with the Supply Chain Act.

Purchasing volumes represent more than half of GEA's consolidated revenue. To manufacture products, GEA purchases raw materials, semi-finished products, precursors and, above all, components not based on the company's core technologies from external suppliers worldwide. In addition, for the construction and delivery of process solutions for a wide range of applications, GEA purchases plant components and awards work to subcontractors, especially for on-site and assembly services. The steel required for constructional steelwork is usually included in the services rendered by subcontractors.

This means that purchasing practices have a considerable impact on profitability, which is why the Procurement and Supply Chain business areas report directly to the COO (member of the Executive Board). The global procurement business area is split between direct and indirect procurement. The strategic orientation of the three business areas is determined in close consultation with the COO and regularly recalibrated to the evolving economic environment. Overall responsibility for GEA's supplier sustainability program rests with the COO, who works closely with GEA's CSO. At the same time, the importance of materials and services procurement reveals the extent of the company's ability to influence social and environmental issues in the supply chain. GEA intends to exert this influence further to make its own supply chains more sustainable.

Global supply chains are becoming increasingly exposed to unforeseen events, and supply chain interruptions can also lead to financial losses for GEA. Furthermore, there is growing demand from consumers, governments and other stakeholder groups for product traceability and transparent reporting throughout the entire supply chain.

In light of this, GEA aims to focus resources and exert influence where it matters most for GEA and its stakeholders. For this reason, sustainability was the main topic at the GEA Supplier Summit in September 2023. The Supplier Summit is a flagship annual event for GEA. It is an opportunity for the company to exchange views with suppliers and jointly develop ideas that could become the sustainable innovations of tomorrow.

In 2023, outstanding solutions, products and technologies that have helped GEA reach its focus topics in the four areas of sustainability, digitalization, innovation and value creation, received the GEA Supplier Award for the first time. A fifth category – Supplier of the Year – was awarded to one supplier for their excellent overall performance. The purpose of the award is to highlight and recognize the significance of the contributions that GEA's suppliers make to the implementation of its strategy in these four areas. The aim is to reward suppliers that have distinguished themselves through their exceptional efforts in these fields and motivate them towards further advancements. Each category was sponsored by a GEA management representative.

GEA intends to reduce its own greenhouse gas emissions to Net Zero at all points of its value chain by 2040. Supply chain emissions (Scope 3) are to be reduced by 27.5 percent by 2030, taking 2019 as the base year. In addition to its efforts toward sustainable production, GEA has also committed to making the maximum possible contribution to the United Nations Sustainable Development Goals (SDGs). To achieve this with regard to the supply chain, the company defines and takes greater account of sustainability criteria in the selection, evaluation and development of its suppliers.

Sustainable Procurement

Sustainability involves much more than just sustainable products and services. Compliance with basic standards regarding social matters and environmental protection throughout the entire value chain is the only way to secure the trust required for long-term business relationships. GEAs responsible resource extraction and the use of sustainably produced precursors are intended to minimize negative environmental impacts and ensure a reliable flow of goods from suppliers. GEA firmly believes that responsible purchasing can enhance its reputation, its appeal as an employer and, ultimately, its ability to compete. Special importance is place on ensuring that human rights are respected in the supply chain.

At GEA, sustainability in procurement is the responsibility of a group-wide team. This team translates the requirements and goals of the group's Mission 26 strategy to the area of sustainability in procurement, specifying them in greater detail and managing the individual initiatives for their achievement in the area of purchasing. Alongside the implementation of sustainability criteria for suppliers, this includes the reduction of greenhouse gas emissions in the upstream supply chain. The team also handles the implementation of regulatory provisions in the supply chain, such as the Lieferkettensorgfaltspflichtengesetz (LkSG – German Supply Chain Act). It also conducts training sessions and helps bolster expertise in this area internally and among GEA's suppliers. In the year under review, the team dealt with integration of the risk management process concept and launched the first process cycle. In addition, the documentation for reporting to the Bundesamt für Wirtschaft und Ausfuhrkontrolle (BAFA – the Federal Office for Economic Affairs and Export Control) will be prepared for the second quarter of 2024.

GEA has ambitious targets for monitoring sustainability in its supply chain. All preferred suppliers – i.e., the suppliers that are the most strategically important and are the biggest by volume, while also satisfying GEA's criteria in terms of price, quality, cooperation and global/regional presence – must meet all of the sustainability criteria specified on the basis of Mission 26 by 2026.

1. Suppliers must accept the GEA Code of Conduct for Suppliers and Subcontractors. This Code of Conduct describes GEA's minimum requirements for its suppliers with regard to human rights, fair working conditions, environmental protection, and the fight against corruption and financial crime.
2. GEA expects suppliers to undergo a sustainability-related assessment by the external CSR rating organization EcoVadis and to share the results with GEA. This transparency allows GEA to select and develop suppliers based on their sustainability performance.
3. Suppliers must set a science-based greenhouse gas emissions target that must also be endorsed by the Science Based Targets Initiative and is therefore consistent with the 1.5° Celsius target of the 2015 Paris Agreement. Specifically, GEA expects suppliers to agree to a declaration of intent with the Science Based Targets Initiative to define a target for the year 2030 (near-term science-based target).
4. In order to carry out life cycle analyses, GEA expects suppliers to provide greenhouse gas emissions data for those products and services that, according to their own analyses, prove to be the main emission drivers in the supply chain.

These requirements and criteria are a core component of the sustainable procurement & supply chain strategy. Further information on the sustainability requirements described above can be found in the dedicated supplier area of GEA's website.

In the year under review, GEA extended application of the sustainability criteria to cover its "A" suppliers, a group that accounts for 80 percent of the annual purchasing volume. Alongside GEA's preferred suppliers, all "A" suppliers will also be required to meet sustainability criteria going forward. This should create greater transparency around suppliers' sustainability goals and initiatives and bring a wider supplier base along on GEA's journey to improved sustainability.

GEA has also launched or joined additional strategic sustainability initiatives with several global suppliers. For example, GEA is a member of the Energy Efficiency Movement, an initiative launched by its automation technology supplier ABB. The purpose of the initiative is to provide a network for companies that are committed to providing more energy-efficient, regenerative and adaptable industrial solutions so that they can leverage synergies and exploit opportunities. GEA intends to be involved in joint projects to reduce energy consumption and cut greenhouse gas emissions.

Awareness of climate protection and sustainability in the supply chain will also be raised within the GEA workforce. For example, the sustainable procurement & supply chain team provided training to local and regional category managers to enable them to roll out sustainability criteria with their respective suppliers. This training focused on human rights and social and environmental factors throughout the supply chain.

With regard to GEA's greenhouse gas emissions reduction targets, the sustainable procurement & supply chain team ran a project on the development of emissions reduction measures for the most CO_2-intensive procurement categories and began implementation of the resulting strategies in the year under review. Cross-functional workshops were held with the category managers in the relevant categories and the engineers for the associated GEA products. In the future, this type of collaboration to reduce emissions along the supply chain will be stepped up, with even greater supplier involvement.

Human rights

GEA expressly requires business partners to apply specific values and rules in all material respects. These values and the rules of corporate social responsibility throughout the entire value chain are documented in the group's Code of Conduct for Suppliers and Subcontractors. These human rights obligations under the Code of Conduct also include the recognition of the ISO 26000 Guidance on Social Responsibility, compliance with international standards, respect for human rights – including the prohibition of discrimination – fair wages and working hours, freedom of association and occupational health and safety.

All category managers (direct and indirect expenses) are covered by this Code of Conduct. Suppliers must accept the content of the Code of Conduct in full to complete purchases that exceed the following threshold amounts specified in the Third Party Policy: EUR 2,500 for individual orders, EUR 10,000 for longer-term contracts. All framework agreements with suppliers and service providers were adapted to meet the requirements of the Lieferkettensorgfaltspflichtengesetz (LkSG – Supply Chain Act) in the year under review.

GEA practices a zero-tolerance policy with regard to unethical business conduct, in particular bribery, corruption, money laundering, and human rights violations.

All GEA suppliers are therefore required to accept the Code of Conduct for Suppliers and Subcontractors, which has been adapted to the requirements of the Supply Chain Act. This Code of Conduct is a standard part of all framework agreements with GEA and all other contracts for the supply of goods or services to GEA. By entering into these contracts, suppliers confirm that they have understood the contents of the Code of Conduct and will implement them within their company. This code includes the fundamental obligation to engage in environmentally sound business practices, respect human rights, act with integrity, provide access to a whistleblower system and to comply with a wide range of sustainability goals. Major suppliers of individual local purchasing companies are visited annually and regularly undergo an environmental assessment. In addition, the procurement organization received training on the Code of Conduct and its application in the year under review.

Beyond the Code of Conduct and in accordance with the requirements of the Supply Chain Act, GEA has developed and applied its own method to assess risks related to human rights violations and environmental risks throughout the supply chain. The method assesses supplier risks in the areas of environment, human rights and occupational safety, ethics and sustainable procurement. The assessment takes into account the risk indicator for the country where the supplier operates as well as the industry in which it is active. This procedure results in a risk indication from "low" to "critical," which initially only reflects the risk to which a supplier is exposed based on its country and industry, and which is used to prioritize the subsequent steps. The supplier's actual performance is not yet taken into account in the assessment.

Suppliers rated as "critical" that generate material revenue with GEA undergo a detailed analysis, which makes it possible to assess the actual risk of the supplier (net risk exposure). GEA has been cooperating with an external supplier in the development of this methodology since 2023. In addition to verifying acceptance of the Code of Conduct for Suppliers and Subcontractors, suppliers are required to provide an extensive report on their risk prevention measures and to support the information provided with corresponding evidence. If, during such analysis, irregularities or deviations from GEA's standards are identified, the risks or deviations concerned must be remedied. To this end, a risk mitigation process is implemented following the risk assessment. Suppliers may subsequently be required to undergo on-site audits by a certified auditor to review implementation of the risk mitigation measures.

At 92, the number of supplier audits in 2023 was lower than in the previous year (299). 15 new suppliers were verified (2022: 103).

For the planning of on-site supplier audits, GEA substantially revised the existing supplier audit governance process with regard to sustainability aspects in the year under review. In the context of this supplier audit governance process, the findings of the supplier risk assessment described above were used for audit planning. Inadequate results can either trigger the exclusion of individual suppliers or indicate the necessity for a more detailed supplier audit. In addition, the audit process itself as well as the questionnaire used were largely standardized, and sustainability was added as an auditable module. All supplier audits are planned and documented using a global tool.

The measures taken are meant to ensure the following:

1. The sustainability performance of all GEA suppliers is evaluated using a simplified assessment methodology.
2. Key indicators for documenting sustainability implementation progress can be recorded: In general sustainability criteria are assessed as part of all supplier audits.
3. Qualified supplier audits are initiated taking into account sustainability criteria.

Conflict minerals

Diverse minerals and metals play an essential role in the manufacturing of many products and components. However, mining, trading and transporting metals and minerals can result in considerable negative impacts. Tin, tungsten, tantalum, and gold – known as the 3TGs or “conflict minerals” – are particularly relevant since, in the past, armed conflicts and the human rights violations they cause were directly or indirectly financed through the mining, trading, use and export of these minerals.

GEA sources only very small amounts of so-called conflict minerals and is therefore not obliged to report in accordance with the EU Conflict Minerals Regulation (Regulation (EU) 2017/821). Furthermore, GEA does not report the U.S. Securities and Exchange Commission (SEC). Hence, GEA is not obliged to report in accordance with the Section 1502 of the Dodd-Frank Wall Street Reform & Consumer Protection Act. Due to the sensitivity of the topic with regard to environmental and human rights, however, GEA is fulfilling this responsibility to monitor compliance. Under the Code of Conduct for Suppliers and Subcontractors, GEA is committed to only purchasing components and materials from suppliers that share GEA’s values with regard to the respect of human rights, integrity and environmental responsibility.

The applicable GEA policies on conflict minerals are aligned with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, GEA’s general policy on international fair trade, the ten principles of the United Nations Global Compact and the core labor standards of the ILO. In addition, an extended due diligence process, in accordance with the OECD’s Due Diligence Guidance, was carried out. More than 500 of GEA’s largest suppliers by revenue – covering 80 percent of revenue in relevant categories – were required to disclose the source of their conflict minerals using the recognized Conflict Minerals Reporting Template (CMRT). These suppliers are in turn required to do the same with their suppliers to ensure full transparency throughout the entire supply chain.

GEA expanded the due diligence process from 71 suppliers in the previous year to more than 500 suppliers in 2023, with the introduction of a risk-based management approach supported by an external provider who has extensive international experience. This should help make risk identification more efficient (e.g., high risk smelters), make the targeted reduction and/or elimination of these risks possible, or lead to the use of new sources of supply.

Further information on the topic of human rights is presented under "Compliance and corporate governance."

Quantification of ecological and social factors in the supply chain

GEA performs analyses of the sustainability impacts throughout its entire supply chain on a regular basis. This also takes account of the greenhouse gas emissions, air pollution, water consumption and waste, as well as workdays lost due to occupational injury and illness, caused by GEA suppliers and upstream suppliers.

The quantification of greenhouse gas emissions from the purchase and transport of commodities, services and capital goods reveals that they exceed the greenhouse gas emissions from the company's own business activities (scope 1) and emissions associated with the use of purchased electricity (scope 2) by a factor in excess of 45. This highlights the significant influence that purchasing has on GEA's greenhouse gas emissions. In the year under review, decarbonization strategies were developed for purchased goods, services and capital goods that accounted for the largest share of these emissions in order to reduce the emissions in future.

Supply chain management

Although GEA's procurement and supply chain organization maintains a focused global overview of the company's supply chain, the local business units operate largely independently. The close cooperation between the supply chain and the procurement organization has resulted in the introduction of a global transport management system, a global packaging policy and other tools and initiatives, which enhance the transparency, standardization and sustainability of GEA's everyday business activities. In the course of a cross-functional workshop, further opportunities to improve the integration of the group-wide sustainability strategy in the supply chain were identified.

Supply chain management operates on three different levels: the divisional level, the regional level and the multi-functional site level. The latter consists of sites serving more than one division. Across the group, approximately 1,050 employees held supply chain-related jobs in 2023. These employees work in different areas of the business and have a wide variety of skills – from warehouse employees to managers with regional responsibility for multiple sites. All supply chain management tasks can be divided into the following categories: planning & scheduling, materials management, warehousing & distribution, transport & customs processing and supply chain excellence – analytics & projects.

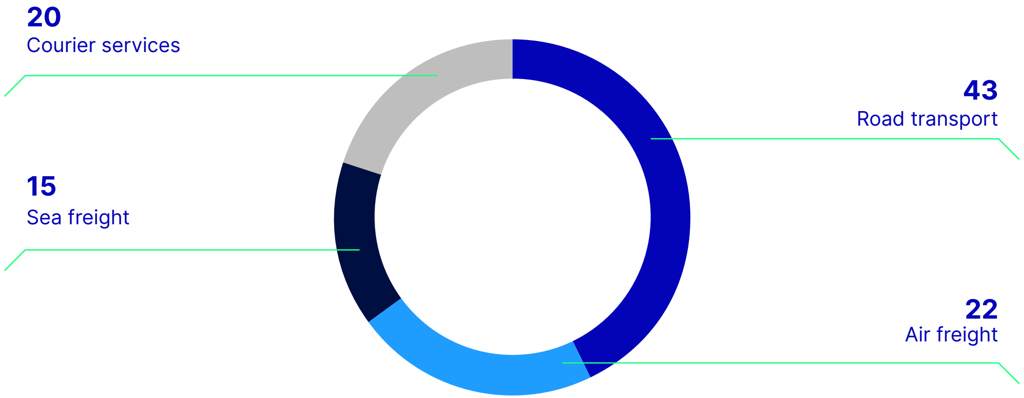
In 2023, out of the 5.4 billion euros in revenue, approximately 3.1 billion euros was spent on purchasing. Purchasing is structured as follows: Product group management aims to ensure strategic action at the global level. Operational procurement acts locally and is responsible for implementation.

Logistics

Wherever possible, GEA applies the „local for local“ principle. This results in shorter and therefore more sustainable delivery routes with lower greenhouse gas emissions, while at the same time enabling GEA to indirectly support the local economies in the vicinity of its sites.

Distribution of transport volume in the year under review

(in %)



The means of transport used depends on various factors. As part of the efforts to minimize the company's carbon footprint, the number of movements is to be reduced to the absolute minimum. An air freight guideline specifies that the divisions must use a tool to have their air freight shipments approved. In principle, sea transport is preferable to air freight because of its more favorable greenhouse gas emissions footprint. Logistics service providers are required to report the CO_2 footprint of air transport to GEA and to sign the GEA Code of Conduct for Suppliers and Subcontractors.

Further information on the topic of the supply chain can be found in the GEA Sustainability Report 2023.

Employees

GEA's performance relies on the skills and dedication of more than 18,000 employees* around the world, each of whom individually contributes to the company's overall success. People will remain the foundation for the company's sustainable development and value growth in the future.

As a global group, diversity and equal opportunities are not only core values for GEA but also the basis for achieving sustainable success in an international setting. The company therefore also sets measurable human resources targets as part of the group's Mission 26 strategy. Among other goals, 80 percent of employees should agree with the statement that they would recommend GEA as a good employer by 2026. The group is committed to the seven United Nations' Women's Empowerment Principles (WEP) and has therefore set itself the goal of having 21 percent of positions at the top three management levels filled by women by 2026 (2023: 21.1 percent). GEA remains committed to respecting human rights as well as the generally accepted core working standards of the International Labour Organisation.

These measures aim to further enhance GEA's employer brand and solidify its status as an attractive employer on the job market. At the same time, the company maintains its firm commitment to a culture of honesty, sincerity and loyalty. GEA also supported individual training and professional development opportunities for employees as well as the attainment of personal career goals within the company in 2023. In addition, in cooperation with all parties involved, GEA creates a working environment where health and safety at work is paramount.

*) On the reporting date; full-time equivalents (FTE) excluding vocational trainees and inactive employment contracts; excluding non-consolidated units; all indicators calculated using the same population

Human resource management

At GEA, Human Resources (HR) is part of the Global Corporate Center, reporting directly to the CEO, who is also the Chief Human Resources Officer. HR and the HR Business Partner organization are closely involved in the operating business. HR Business Partners support the divisional and regional management on all matters relating to human resource management. Internal HR Operations Teams at the Berlin, Bogota and Kuala Lumpur site provide support in the form of timely HR services. And the Centers of Expertise – which include Employee Attraction & Development, People & Talent Development, Total Rewards & Mobility and Labor Relations/Labor Law – create modern concepts to establish GEA as an "employer of choice" over the long term.

Employment

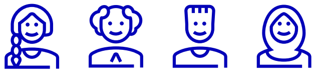
The labor market has been dominated by fierce competition for talent and the effects of demographic change for many years. As a result, significant efforts are required to find diverse and qualified employees. Ensuring long-term loyalty to the company among employees is also an important task for HR management. GEA places a high value on a diverse, equitable and inclusive corporate culture as a means of assuring its labor market reputation as an attractive employer and thus safeguarding the company's future viability. As part of its Mission 26 strategy, GEA also provides further support to employees to undertake targeted training as well as to achieve their medium- and long-term career goals.

A total of 2,133 new employees joined GEA in the reporting period, compared with 2,374 in 2022. The total number of new hires as a percentage of the average headcount last year was 11.2 percent as of December 31, 2023 (previous year: 12.6 percent).

Diversity, inclusion and equal opportunities

GEA not only pursues team diversity in HR but applies this approach across all areas of the group. As a global company, GEA is involved in a challenging international market environment with a large number of stakeholders – ranging from customers, competitors and employees to governments and society in general – who impact the company in different ways. GEA meets the numerous challenges in this highly disparate cultural environment by observing the principle of diversity. GEA understands diversity to mean a workforce comprising a broad range of personal characteristics, individual skills, expertise and aptitudes. These include gender and gender identity, age, ethnic background and nationality, physical and mental abilities, sexual orientation, religion and ideology, as well as social background. However, external and organizational factors such as professional experience can also contribute to diversity. For GEA, inclusion means the empowerment and involvement of all employees irrespective of their individual differences, including equal access to opportunities and resources for all employees.

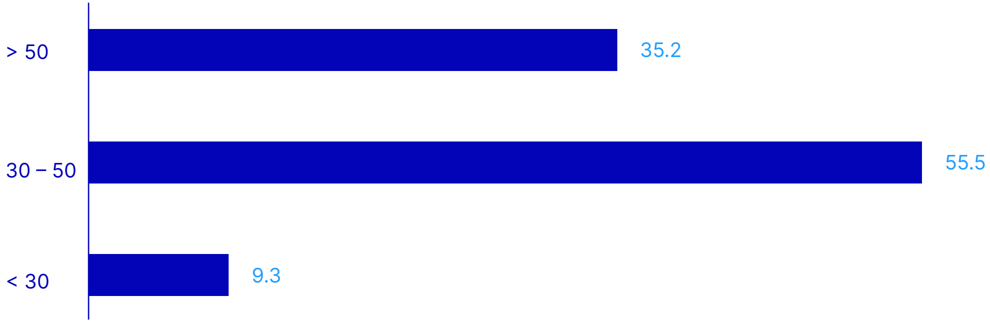
GEA's diversity and inclusion initiatives are aligned with the Charta der Vielfalt (German Diversity Charter), a corporate initiative to promote diversity in companies and institutions. GEA is thus committed to equal opportunities, including equal pay. In 2021, the company set additional, quantifiable diversity targets, which are anchored in its Mission 26 strategy. Among other goals, these include 21 percent of positions at the top three management levels being filled by women and 80 percent of vacancies at all management levels being filled by in-house talent by 2026.

107 

nations are represented at GEA

In 2023, GEA had employees from 107 different nations. The workforce is distributed as follows between different age groups: 9.3 percent of employees are younger than 30, 55.5 percent are aged between 30 and 50 and 35.2 percent are older than 50 (see chart).

Employees by age groups*
(in %)



*) Number of employees excluding apprentices and dormant employment contracts; excluding non-consolidated entities.

Employee diversity is achieved through shared understanding and actions based on common values. For this reason, GEA aims to not solely center the discussion around quotas or recruitment but also to ensure that it addresses conduct and values. GEA strongly believes that diversity in all areas is the key to enriching the workforce and GEA's success. The group-wide "Diversity & Inclusion Policy & Guideline," which describes the overarching aim of diversity management at GEA, provides the framework for this strategy. For example, diversity criteria are taken into account as a general rule when filling positions. In the "Group Inclusion Agreement", which entered into force in 2023, GEA undertakes to strive for and ensure the integration and professional inclusion of people with disabilities. This Inclusion Agreement contributes to the target of achieving equal opportunities for all and preventing the discrimination against and social exclusion of people with disabilities.

Through these efforts, GEA is reaching new groups of potential employees, enabling it to counter the skills shortage. Long-serving, experienced employees who experience disability can remain in employment longer, reducing the impact of demographic change.

Diversity and equal opportunities are a firm aspect of human resource processes, for instance in the “Global Placement Policy” which governs the recruitment process. Special selection criteria, including diversity considerations and an interdisciplinary approach, apply to the nomination of candidates for leadership development programs. This aims to ensure the balanced representation of genders in leadership development and the attainment of the target set in Mission 26.

Labor/management relations and co-determination

Relations between workers and management at GEA are characterized by long-standing, respectful dialog and interaction with employee representatives as well as parity co-determination on the company’s Supervisory Board. One half of the Supervisory Board of the listed company GEA Group Aktiengesellschaft is composed of shareholder representatives and the other half of employee representatives. Although the employee representatives on the Supervisory Board are elected by the entire German workforce, they represent the interests of all employees. In addition to numerous local and general works councils, GEA also has a Group Works Council (GWC) established in accordance with the German Works Constitution Act. At corporate level, local issues are regulated by company agreements.

GEA also has a European Works Council (EWC), which has the binding right to information from and consultation by the company’s management. It is in regular contact with the Executive Board and Human Resources. The activities of the European Works Council mainly focus on the cross-border impact of decisions and developments on employees in the EU member states, the countries of the European Economic Area and Switzerland. At the end of 2018, the foundations for the work of the EWC were framed in a new EWC agreement, jointly developed and adapted by GEA’s Executive Board and the EWC with the assistance of the global trade union federation IndustriALL.

Collective bargaining agreements apply to around 47 percent (2022: around 48 percent) of GEA employees worldwide. All other employees have individual contracts.

Leadership development

GEA offers leadership development through numerous open training courses on leadership and management in a variety of formats. These include well-established courses such as GEA Management Essentials, Leading effective Teams, and Making the Matrix Work. The basis for all training formats is the “GEA Signature for Leadership” model, which describes the main behavior patterns, skills and conduct expected of GEA managers worldwide on the basis of six dimensions. In addition, by 2024, senior executives will be required to participate once in the live online training “Boost Your Dialogue Skills,” which aims to enhance the quality of the feedback provided by leadership.

Managers receive targeted support on their current and future needs through two programs: “Learn to Lead” for individual contributors and first-line managers, and “Master to Lead” for more experienced managers. Managers also have a number of development opportunities to choose from based on their individual needs. These include individual coaching, a 360-degree feedback tool, other trainer-supported live online trainings such as „Leading People Through Change“ and „Why Finance Matters,“ and a wide range of e-learning courses.

In addition, GEA uses “Leadership Reviews” to create a framework for identifying development needs, selecting individuals with high potential and determining the requirement for successors on an annual basis. The intention is to foster a uniform leadership culture and ensure optimal leadership development for managers. The only way for GEA to attract and retain talent in the labor market is through leadership excellence that can be tangibly felt by each individual.

Alongside the needs-based training and development of all employees, separate development pools – such as two high potential pools (HiPo pool 1 & 2) and the talent pipeline – were also established to facilitate medium- and long-term succession planning for key positions at group level. Candidates nominated by their line managers undergo a rigorous selection process both to confirm that they have the required potential and to form the basis for their targeted and individualized development.

Learning and development

Training and education at GEA is a particularly important aspect of its human resource development. The group's Mission 26 strategy reflects the company's intention to be a preferred employer in its industry. The company is convinced that extensive training and education coupled with the opportunity to engage in life-long learning are essential to a fulfilling working life. Workday Learning is a virtual platform and central access point for everything related to learning. This integrated learning platform centralizes GEA's training portfolio and how it is presented. GEA generally supports and promotes all needs-based employee training measures required for the performance of relevant tasks. The findings of several employee surveys have indicated a need to further improve the career and development opportunities offered to employees. In the Perform & Grow program, which is open to all GEA employees, managers and employees discuss career expectations, identify the development needs of each employee together and translate this into individualized development programs. The Workday Learning platform supports the annual Perform & Grow process. The platform gives managers and employees a better overview of the training and courses they have completed and makes it easier to track development activities.

In 2023, 20,256 employees made use of the learning and training opportunities. 2,490 employees attended face-to-face training, 1,313 participated in integrated training initiatives and 10,786 joined trainer-led webinars. In addition, 89,423 e-learning seminars were held in the year under review.

Vocational training in Germany

GEA was again named one of the most popular training companies in Germany. For the second consecutive year, a rating agency survey placed GEA among the 838 companies in Germany rated as extremely attractive training providers. In the reporting period, GEA employed 101 new apprentices at 13 sites in 15 commercial and industrial/technical occupations, which fall into different specialty areas depending on the product portfolio of the individual site. The Oelde site is the center for technical training, coordinating these activities in Germany. In addition, 14 combined vocational training and degree programs were organized in cooperation with colleges and universities. Lasting six semesters, these programs lead to bachelor degrees in various fields of expertise. GEA has given the practical phases of the program a more international focus by offering projects at GEA entities outside Germany.

Employee survey

GEA conducts a global employee survey regularly. The overarching aim is to encourage a culture of dialog and discussion, actively involve employees in the company's development and provide a targeted response to the feedback following the evaluation of the responses. GEA has been working with an independent opinion research institute since 2019 in order to professionalize and standardize the process. To ensure the highest possible degree of comparability, the questions are standardized and always asked in the same form. This fosters acceptance of the process of pursuing and constantly advancing the opportunity offered by the measures that are implemented.

The employee survey is accompanied by a comprehensive communications campaign at all levels, with the aim of strengthening employees' confidence in the survey program as well as in leadership. In addition, all managers receive training to help them respond to and implement the findings of the survey. This helps continuously improve GEA's employer branding.

82 percent of all GEA employees participated in the employee survey for 2022, which is relevant for the reporting period. This is slightly up on the preceding year's participation rate (81 percent). There were improvements in all twelve areas covered by the previous year's survey, with engagement and sustainability scoring highest. These were also the highest scoring aspects in the preceding survey. Apart from two categories, each with a one percentage point increase, all other categories saw a year-on-year increase of three points. These include engagement, positive working environment, employee communication, growth opportunities, and meaningful work. The growth opportunities aspect relates to individual personal development opportunities provided through a varied range of education and training options. The area of innovation scored five percentage points higher than in the previous year. Furthermore, GEA introduced a thirteenth aspect – diversity – in the year under review, which immediately received the third highest score.

In the reporting period, as in the previous year, GEA consistently worked to enhance HR management's role in developing action plans. Managers were provided with a new interactive template to simplify processing of the detailed results. A total of around 4,029 initiatives were launched in response to the feedback during the reporting period, leveraging the survey's findings to optimize existing processes and implement new ones.

The survey consisted of a total of 39 questions divided across the 13 different dimensions. With a score of 74 percent, the dimension engagement represents a key element. This dimension encompasses three statements, each of which achieved a better result than in the previous year: With 78 percent agreement, the statement “I would recommend GEA as a good place to work” scored three points higher; likewise, agreement with the statement “I would choose to stay with GEA even if offered the same pay and benefit elsewhere,” also saw a three-point improvement. And the statement: “I am motivated to go beyond what is normally expected to help GEA be successful,” achieved a one-point improvement.

Although rewards & benefits, trust in leadership and growth opportunities remain the lowest scoring dimensions, significant improvements have also been made in these areas. This is clear evidence of the success of the follow-up process from the previous year. An increase of three percentage points was recorded in the area of hands-on management, which was also a focal point in the previous year.

GEA is particularly pleased that 78 percent of GEA employees agreed with the statement “I would recommend GEA as a good place to work.” This motivates GEA to continue its current programs and further increase employee satisfaction. To ensure better integration into the HR process as a whole and to enable a stronger focus on the employee survey, the decision was made to postpone the survey schedule to March 2024.

Work/life balance

GEA is committed to ensuring that its employees are able to achieve a good balance between work and life. Employees can only achieve their full potential if they have a healthy work-life balance. GEA supports the workforce through a variety of measures. For instance, some sites have experienced contact persons to answer questions from expectant mothers and fathers or to discuss flexible working arrangements. Similarly, GEA also provides support in finding childcare and, under certain conditions, grants tax-free allowances to cover the costs of daycare.

GEA produced videos to raise managers’ awareness of the particular challenges of balancing work and family life for employees facing the birth of a child or caregiving responsibilities for a family member. In addition, the company works with an external service provider to help employees in Germany find suitable options to provide daycare for children and look after dependents in need of care. This offering also includes free social counseling. Information about other work-life balance programs provided by GEA in other countries can be found in the GEA Sustainability Report 2023.

Pension plan

GEA grants its employees pension benefits almost exclusively under defined contribution pension schemes. Employees are able to actively shape their pension plans in cooperation with the employer. Supporting company pension schemes allows GEA to respond to demographic change and retain qualified employees over the long term. GEA continuously optimizes existing administrative processes and global pension-related service structures to improve both the transparency and economic efficiency of its pension programs. In doing so, the company ensures that the pension plans fully comply with all statutory and regulatory requirements.

Mobility

Given the advanced degree of digitalization and the related opportunities, such as working from home or video conferencing, GEA is reliant on employee mobility. However, keeping the environmental footprint of business travel as small as possible is a key concern for the company. Various initiatives have been launched to achieve this. In Belgium, Germany and the Netherlands, for example, GEA provides a company car program for managers under which only fully electric vehicles may be leased. Similar schemes are due to be rolled out in other countries over the next few years. In addition, employees have a greater incentive to travel to work by green means of transport, with GEA granting reimbursement for public transport passes, for example.

GEA works with a central service provider to book necessary long-distance business trips. To meet market requirements and safeguard the company’s sustained long-term competitiveness, it is important to be able to deploy the know-how and expertise of GEA’s employees worldwide as needed. The service provider ensures that the required international assignments are carried out efficiently and in a climate-friendly manner.

Occupational health management

Only employees who are healthy and feel well can perform to their best. GEA's various measures to promote health go above and beyond the legal requirements – because investments in employee health and well-being are investments in the future.

At GEA, corporate health management is decentralized and is the responsibility of the divisions and regions as well as the respective sites. The "GEA Care" health program, which will centralize health management in the future, has been integrated in the group's Mission 26 strategy. GEA Care is optimizing existing local offerings and creating new global, digital offerings for the entire workforce.

General health, individual preparedness and prevention is just as important as safeguarding against workplace accidents and hazards. Protecting and promoting health is not only a social obligation and an expression of GEA's corporate culture, it is also an integral part of its Mission 26 strategy. At the different locations, the group's health management frequently exceeds the healthcare provisions required by law and the established occupational safety measures. It includes additional aspects and various initiatives, such as health days, nutrition advice and programs to prevent mental overload. A health portal provided by an external provider is also available to employees.

Health management is already an established component of the healthcare package available at numerous GEA sites. In the year under review, initiatives such as GEA "Care Days" were again held at several German sites, including Bönen, Oelde, Ettlingen, Karlsruhe and the company headquarters in Düsseldorf. Additionally, a weekly online exercise program for the shoulders, neck and back was offered to all employees at German sites throughout the year. Many German sites make regular use of this program, and its expansion and availability in English are currently being planned. All health management activities are bundled under the global umbrella of GEA Care. These activities include mandatory occupational medical examinations or flu vaccinations, as well as offers of psychosocial support, stress management, and other in-person and online offerings.

The company's goal is to establish offerings and procedures that meet the needs of employees. What makes sense for one location may not necessarily be relevant for another, and cultural, religious and regional factors always need to be taken into account. Working closely with healthcare providers, health insurance companies and company physicians, maintaining close ties between the HR department and the works council and getting a clear understanding of the needs of the workforce are the only way to bring about sustainable success and establish a long-term health management scheme.

This ambitious goal builds on the wealth of experience available at German sites (e.g., Oelde, Bönen and Düsseldorf) that already offer very successful and, in some cases, very comprehensive sustainable health management programs in various forms. A global GEA Care Policy forms the framework and promotes professional networking between the GEA sites internationally. Regular dialog and joint meetings bring the diverse experiences and needs to light. The aim is to create a comprehensive knowledge database of activities and ideas for successful corporate health management policies. This will help avoid duplication of effort, identify and utilize potential synergies and keep costs in check, especially for GEAs online programs and offerings.

Further information on the topic of Employees can be found in the GEA Sustainability Report 2023.

Compliance and corporate governance

Responsible corporate governance

GEA is committed to responsible and sustainable corporate governance to prevent any potential damage to the company, employees, business partners, shareholders or other stakeholders. In light of this, fairness, integrity and lawful conduct are treated with the highest priority throughout the group. GEA also protects its reputation as a trustworthy business partner through ethical conduct and respect for the interests of all stakeholders in its dealings with employees, business partners and the general public.

GEA became a member of the World Economic Forum Partnering Against Corruption Initiative (PACI) in the year under review, undertaking to adopt a zero-tolerance policy with regard to bribery and corruption. GEA views this as an opportunity to contribute to this best practice initiative in the future and help drive developments in the area of anti-corruption.

It is important that GEA is notified at an early stage when serious violations of laws or internal policies occur. GEA therefore values an open corporate culture and encourages its employees and external third parties to confidentially report any compliance risks to the relevant contacts within the company.

As in the previous year, relevant fines for non-compliance with laws and regulations in the economic, environmental and social areas were not imposed on GEA during the reporting period.

Corporate governance

Responsible corporate governance aimed at sustainable value creation in the interest of all stakeholders is the benchmark for the actions of the Executive Board and Supervisory Board. According to the provisions of the German Corporate Governance Code (GCGC), the competence profile of the Supervisory Board should also include expertise on sustainability issues that are important to the company. Within the Supervisory Board, the Presiding and Sustainability Committee is responsible for the sustainability strategy and fundamental environmental, social and governance (ESG) issues, including their implementation. Topics such as technical and product-related sustainability have been assigned to the Innovation and Product Sustainability Committee, while the topics of taxonomy and sustainability reporting are the responsibility of the Audit and Cybersecurity Committee.

Information on the compensation of the Executive Board is provided in the Remuneration Report, and information on the competence profile of the Supervisory Board is included in the Corporate Governance Statement.

Compliance

Compliance Management

Compliance is defined as a group-wide principle established to ensure adherence to the rule of law as well as internal corporate policies. All GEA employees are required to ensure that there are no compliance violations in their respective areas of responsibility. A detailed outline of GEA's compliance management system (CMS) can be found in the Corporate Governance Statement in this Annual Report 2023 and on the company website www.gea.com.

GEA tackles the serious effects of potential compliance violations through its compliance management system. This is used to analyze, inform and educate as well as to control, define processes and monitor the applicable compliance rules. The CMS is structured in such a way that measures are adopted centrally by a compliance team at GEA Group Aktiengesellschaft and then implemented in the group. In addition, the compliance team is tasked with ensuring that compliance measures are implemented in the relevant legal entities.

New compliance goals are established, or existing ones are reviewed as part of a rolling three-year plan for issues to be addressed. Furthermore, the appropriateness and implementation of the CMS is ensured, through measures such as the audit and certification under IDW PS 980, which was carried out in fiscal year 2022. Notable subdomains covered by the CMS include anti-corruption and antitrust law, including ethical matters such as corporate culture.

Compliance Handbook

A Code of Conduct and related compliance policies apply to all GEA employees worldwide. These comprise an Integrity Policy, a Third Party Policy and a Competition Policy, which govern anti-corruption and anti-money laundering, conflicts of interest as well as antitrust and competition law at GEA. The Code of Conduct and policies are summarized in a Compliance Handbook that is available to all employees worldwide in 19 languages. By signing their employment contracts, all GEA employees confirm that they have read and accept the references to the group policies contained therein, including the Code of Conduct.

Other compliance topics, such as quality, health, safety and environment (QHSE), tax compliance, export control and human rights are addressed by the relevant specialist departments and are covered by corresponding guidelines issued by these departments. Where necessary, relevant training is offered by the specialist departments.

Reporting system and alternative reporting channels

Both GEA employees and external parties can report violations in several ways. The cornerstone of the reporting system is the use of an electronic whistleblower system, which has been adapted to the Whistleblower Directive of the European Union and the corresponding German implementation act. The 2023 Whistleblower Directive comprises significantly more reporting categories than before, including topics related to sustainability, human rights and information security. The certified whistleblower system allows people to report compliance violations anonymously or openly in 19 languages. The whistleblower system also includes a telephone reporting channel operated in cooperation with an external law firm. Furthermore, human rights violations can be reported in the form of a voice recording via 55 different national telephone numbers. The new Whistleblower Policy, which is available for download from GEA's website and the GEA Intranet, provides the key principles of the whistleblower system.

Thanks to the increased awareness of employees who have received training, the number of reports via the whistleblower system rose in 2023 compared with the previous year. However, no significant compliance risks were reported in the reporting period, and, accordingly, no cases were recorded. Many reports are received directly by the compliance team as well as by the Executive Board or the management of the divisions or legal entities. The whistleblower system can also be used to report breaches of the Code of Conduct, incidents of corruption, and antitrust, export control, and data protection law violations, as well as serious violations (these include information security breaches and potential human rights violations). In 2023, a total of 26 reports on core compliance topics such as corruption and conflicts of interest were submitted via the whistleblower system or alternative channels (previous year: 18 reports). This is a positive development, as it shows that employee awareness is increasing worldwide.

Preventive processes

Processes to prevent compliance violations play a key role in GEA's compliance management system. For example, external third parties working in close contact with customers – primarily third parties who support GEA in obtaining orders (sales agents) – must undergo a strict risk vetting process for anti-corruption purposes prior to entering into a contract with GEA. Notably, every sales agent and every contract with such sales agents must be reviewed and approved in advance by the compliance team. Sales agents are also requested to complete an initial Compliance Training. The review of other selected business partners in purchasing is carried out as part of the human rights risk analysis, subjecting them to scrutiny in areas such as compliance and sustainability issues. This involves identifying risk indicators (red flags) in a structured and documented review process that covers the expertise and integrity (including the prevention of corruption) of the business partner in question.

Strict internal approval and reporting requirements apply to numerous other matters, such as contracts carrying antitrust risks, invitations and gifts, and conflicts of interest. To meet these approval and reporting obligations, GEA has introduced various IT tools that make it possible to document the relevant issues in an audit-compliant format.

Training and consulting

Across the entire group, more than 10,000 employees are considered to be relevant to the area of compliance. This group includes all managers, sales and purchasing staff and all other employees with decision-making authority and direct contact with customers or suppliers. They receive regular training on compliance issues as part of a training plan. The compliance issues include topics such as antitrust law, industry associations, industry, meetings and collaboration with competitors. Each year, compliance-relevant employees alternate between classroom training and e-learning sessions. E-learning comprises three courses on the subjects of anti-corruption, antitrust law and money laundering. Since 2023, this training has also been provided to temporary and part-time employees at GEA with compliance-relevant roles. The following mandatory training sessions on compliance issues were carried out in 2023:

- Compliance training: These comprehensive group training sessions primarily focus on compliance management, the Code of Conduct, anti-corruption, money laundering prevention, conflicts of interest and competition law, as well as an overview of the Internal Control System, and other ethics-related matters. In 2023, a total of 9,600 employees were trained on compliance topics as part of an e-learning program and more than 7,600 in classroom training sessions. A reminder and escalation process ensures that employees complete the mandatory compliance training course soon after receiving the invitation. The participation rate is close to 100 percent.
- Human rights training: Mandatory human rights training courses in the context of the update to the Human Rights Policy for all active employees of the total of some 18,000, delivered via GEA's Workday Learning platform.

Alongside the training courses and e-learning mentioned above, GEA used other communication measures to raise employee awareness of compliant conduct in the reporting period. Measures include a video series, in which GEA's Chief Compliance Officer discusses key compliance topics with other senior executives to help sensitize employees these issues. These video compliance talks are regularly made available on the GEA Intranet. In addition, the "Did you know...?" format provides short-form information on data protection and compliance topics in the style of social media posts.

The global rollout of human rights training courses from mid-September 2023 was supported by a communications campaign, which comprised articles distributed via internal communications, a dedicated intranet page, publicity around the Human Rights Complaints Hotline (a hotline for reporting human rights violations) and communicating the "zero tolerance" stance in relation to human rights violations. The aim is for all employees to be actively involved.

Audits

An important review to reduce compliance risks is carried out before approving travel accounting claims as well as invitations and gifts. If the expenses are above the thresholds applicable at GEA, they are only reimbursed if the expenses have been preapproved via the compliance approval tool. Similar reviews are conducted prior to entering into contracts, such as in situations where relevant conflicts of interest have been identified.

Compliance risk analyses are conducted annually as part of a compliance risk assessment in the legal entities. For these analyses, interviews are conducted with individual, randomly selected legal entities. The statements are analyzed and documented using IT tools, and the compliance risks are assessed. Self-assessments are carried out at all legal entities where interviews are not conducted. The aim is to determine whether the compliance measures taken are effective and risk-appropriate or if they need to be modified. Accordingly, additional compliance measures were rolled out at numerous legal entities based on the audit findings. In the year under review, all operating legal entities were audited. Ten audits were carried out in the form of interviews and the remainder as self-assessments, with 100 percent coverage achieved. By means of spot check controls it is also assessed that Compliance regulations are followed. Thanks to a rolling system, all legal entities can be audited every three years.

In addition, risk assessments – including impact assessments – regarding human rights in the context of the Supply Chain Act were carried out internally, as well as in the supply chain. Depending on the risk of the respective supplier location, appropriate measures such as contractual clauses, questionnaires or audits are employed as risk mitigation measures. This is the responsibility of GEA's Human Rights Officer.

Compliance violations

Violations of group-wide compliance rules are sanctioned according to the degree of culpability as well as the severity of the misconduct. The sanctions imposed range from a reprimand to a warning letter and a reduction in bonus payments to, ultimately, termination (without notice) of employment. In particularly severe cases, GEA reserves the right to sue the person in question for damages and/or report the violation to the competent authority.

GEA expects all employees to report any signs of compliance violations. Managers must ensure that serious misconduct, particularly in the areas of corruption, competition law and data protection, is reported to the Compliance Team.

In the reporting period, 26 compliance investigations were carried out – all in the areas of anti-corruption and conflicts of interest or violations of internal compliance. The investigations identified some violations of compliance guidelines, which were penalized with appropriate measures implemented by Compliance Committees convened for each individual case. No human rights violations were identified in the reporting period. Any violations of human rights must be reported to the Sustainability department. Furthermore, no sanctions were imposed on GEA in 2023 for violations of anti-corruption or money laundering regulations or antitrust law.

Protection of personal data

As a globally active, innovative company, information and its use to achieve corporate goals are of paramount importance for GEA. Yet, protecting the privacy of every individual whose personal data the company processes is equally important. This includes employees, customers, suppliers, other contracting partners, as well as job applicants and applies to all GEA companies and specialist departments that handle personal data.

A key strategic theme in 2023 was the further advancement of Data Protection's strategic collaboration with Procurement, IT, Business Process Management and Information Security. The aim is to harmonize data protection processes with the processes in these business areas and, in the long term, to integrate the data protection management system with these specialist areas' systems. Furthermore, the data protection risk assessment logic in GEA's data protection management system was further developed and automated. As a result, risks can be identified more quickly, consistently and reliably.

The EU General Data Protection Regulation (GDPR) and the local laws based on it, as well as foreign legal standards, form the basis for the company's data protection activities. Violations of the GDPR are punishable by fines of up to EUR 20 million or four percent of the group turnover and could lead to exclusion from public contracts. Privacy violations could also damage GEA's reputation over the long term. Moreover, responsible and compliant data handling is a key component of corporate social responsibility against the backdrop of advancing digitalization. GEA therefore requires adherence to data protection regulations and reserves the right to take action against anyone who fails to comply with data protection laws. Such actions may include, for example, disciplinary measures or claims for damages.

The Data Protection Policy provides all employees at GEA with guidelines and behavioral recommendations to avoid data protection incidents or violations. The Data Protection Policy forms part of GEA's global compliance principles and is supplemented by classroom-based training for employees working in sensitive areas as well as e-learning measures for all employees with a user account. The related data protection management system also covers all organizational aspects, i.e., the roles, tasks and responsibilities related to the processing of personal data. In the area of data protection, 9,294 employees participated in e-learning sessions while 454 received live-online trainings in 2023.

In the reporting period, GEA continued to monitor, and implement measures to comply with, new local data protection laws as part of its legal monitoring process. This demonstrates the ever-growing importance of data protection for GEA, also in an international context. A particularly noteworthy example is China, where a project was launched to meet the requirements of the Personal Information Protection Law (PIPL). In addition, a deletion project was carried out to create solutions for automated data deletion in SAP systems for over 130 GEA entities. Technical implementation is scheduled to begin in 2024.

In fiscal year 2023, GEA recorded a year-on-year decrease in the number of reports and requests for advice, although the number remained high, in some cases several per day. This should be viewed as positive, since it demonstrates that employee awareness of this issue is increasing globally. It can be interpreted as a sign that the quality of data protection monitoring has further improved.

Compliance with data protection requirements and the applicable data protection laws is reviewed on a regular basis. These reviews are the responsibility of the company's data protection officers and other business units with audit rights or by external auditors. Third-party suppliers are audited via supplier self-declarations, audits and certificates. By December 31, 2023, more than 180 additional relationships with suppliers and subcontractors had been reviewed with regard to data protection compliance and if necessary, contracts were amended or executed to ensure compliance with the GDPR.

In addition, GEA has a Group Data Protection Officer who coordinates and supports group-wide data protection initiatives. The Group Data Protection Officer reports directly to the Executive Board, the Supervisory Board and the Audit and Cybersecurity Committee.

Information Security, Business Continuity and Crisis Management

GEA's success also heavily relies on Information Security and ensuring Business Continuity. This is particularly true in light of the increasing interconnectivity of GEA's systems and the crucial importance of information for the company's business. Information Security is one of GEA's key strategic priorities. Value creation processes are being structured and optimized in such a way that secure data handling is assured. Furthermore, GEA is continuously enhancing its security measures. To increase the company's information and cybersecurity the Global Security Program was launched in 2020.

The overall objective of Information Security is to protect company-relevant information – both proprietary information and that of customers and partners. To achieve this, the confidentiality, integrity and availability of this information must be ensured. Confidentiality means preventing unauthorized access to information. Integrity ensures that information is reliable and accurate. Availability refers to the ability of authorized persons and systems to access data, objects and resources promptly and without interruption.

The GEA Information Security Policy, as well as subordinate policies, procedures, processes and other implementation documents, regulate the protection of information.

The Information Security Management System (ISMS) enables GEA to systematically counteract growing security threats in order to protect sensitive information of all types, for example from theft, loss, unauthorized disclosure, unlawful access, misuse, alteration, or destruction. Two lines of defense within the ISMS protect against major security risks. The first line of defense consists of seven focus areas and addresses risks (vulnerabilities and threats) where they arise:

- IT Security – Secure information in office IT networks and systems
- OT Security (Production) – Secure information in production & engineering networks and systems
- Product Security – Secure digital products and customer information
- Internet security – Secure information in web including social media presence
- Physical Security – Secure information in sites, buildings & offices
- Supplier security – Secure information in procurement and the supply chain
- HR Security – Secure employee expertise, the proper use of information and prevention of insider threats

The second line of defense is the Information Security, Business Continuity and Crisis Management Team led by the Chief Information Security Officer (CISO). The CISO is responsible for all information security, business continuity and crisis management governance and steering topics. The CISO regularly reports to the Executive Board and the Audit and Cybersecurity Committee of the Supervisory Board. This committee, formerly known simply as the Audit Committee, was renamed to emphasize the importance of Information and Cybersecurity.

Within the scope of the global ISMS, all managing directors are responsible for maintaining an appropriate Information Security Management System in their respective legal entity.

The implementation of the ISMS is also dependent on the employees of GEA. Each year, mandatory Information Security trainings are held for all active employees to ensure their closer involvement and awareness regarding the security measures. Moreover, a global communication campaign is creating additional awareness for and sensitivity to the topics of Information Security.

A series of explanatory videos addresses content from the ISMS policies such as email fraud or proper visitor management. Beyond prevention measures, the videos also provide information on what to do in the event of security incidents to address those as quickly as possible and prevent damage. GEA uses trainings, phishing simulations and communication campaigns to inform and educate employees about the latest criminal methods and how they can best protect both themselves and GEA. In the year under review, the Executive Board and Supervisory Board, the IT department, external IT service providers, sales managers, production employees and Local Information Security Officers (LISOs) also received in-depth trainings on security risks, secure practices and the secure use of physical and digital systems in the form of e-learning and in-person sessions. A global campaign to raise employee awareness was launched in 2023. This provides tips on secure practices and explains the techniques used by (cyber) criminals. In addition, the online Identity and Access Management (IAM) system “MyAccess” and the “Security Incident Reporting Portal” went live to better protect employees’ digital identities, to simplify security incident reporting and to provide employees with expert support.

In the event of a security incident, information security investigations can be ordered by the Executive Board, the Chief Compliance Officer or the CISO. No complaints about breach of protection or loss of customer data were received by GEA in 2023.

Due to the increased security risks, especially related to the conflict between Russia and Ukraine, the overall number of cyberattacks again increased significantly. More and more government institutions, authorities and companies, therefore, require their suppliers – including GEA – to ensure adequate security and to demonstrate that they have market-specific certifications in addition to the ISO 27001 standard.

Other significant aspects of the Business Continuity Management are site-specific business impact analyses and business continuity plans in preparation for potential business interruptions, emergencies and crises. These site-specific measures are supplemented by a global Crisis Management Team, which is able to refer to predefined scenario-based playbooks should a crisis occur. The business continuity plans and crisis management playbooks undergo regular reviews, verification and practical exercises. The preventive measures enable GEA to respond appropriately to changing geopolitical risks and other unforeseeable events and – as far as possible – maintain the stability of GEA’s business operations.

Internal Audit

Internal Audit reviews compliance aspects as part of its standard and special audits. Internal Audit is an independent control function in the three lines model of integrated corporate governance, risk and compliance. It audits and advises on behalf of the Executive Board and reports quarterly to the Executive Board, the extended management circle and the Audit and Cybersecurity Committee of the GEA Group Aktiengesellschaft Supervisory Board. It also maintains continuous communication with the divisions, regions and central functions of the group as well as with the group auditor. The independent and objective auditing and consulting services are aimed at creating added value and improving business processes. To this end, binding measures are agreed upon with the audited units and their timely implementation is monitored. Internal Audit supports GEA in achieving the corporate goals by using a systematic and targeted approach to evaluate and improve the effectiveness of risk management, controls, as well as management and monitoring processes. Its activities cover all of GEA’s legal entities, business operations, functions and employees. In fulfilling its duties and responsibilities, Internal Audit has full audit rights and has full and unrestricted access to all operating and business facilities and all information and systems.

Internal Audit’s tasks include protecting corporate assets, verifying process efficiency and compliance, as well as checking the completeness of documentation. This also includes compliance investigations, independent of and related to specific events, audits of export controls, sustainability, human rights, and all central functions of the group. In the reporting period, the Internal Procurement Department was audited. A total of 47 audits were carried out at GEA entities worldwide, some as remote audits. Of these, a total of 40 audits were completed by the end of December 2023 with the publication of a final report.

Further information on the topic of compliance and corporate governance can be found in the GEA Sustainability Report 2023.

Disclosures on the European Union Taxonomy Regulation

Background and objectives of the Taxonomy Regulation

The European Union (EU) aims to be climate neutral by 2050. The purpose of the European Commission's Action Plan on Sustainable Finance is to promote investment in sustainable economic activities. Regulation (EU) 2020/852 (the „Taxonomy Regulation" or „Regulation") is an integral part of the Action Plan and a classification system that defines the economic activities that contribute to the achievement of the following six environmental objectives:

(1) Climate change mitigation
(2) Climate change adaptation
(3) Sustainable use and protection of water and marine resources
(4) Transition to a circular economy
(5) Pollution prevention and control
(6) Protection and restoration of biodiversity and ecosystems

The Taxonomy Regulation defines an economic activity as sustainable and therefore taxonomy-aligned if it

- contributes substantially to one or more of the six environmental objectives (**substantial contribution**),
- does not significantly harm any of the five further EU environmental objectives (**do no significant harm** or **DNSH**), and
- is carried out in compliance with the **minimum safeguards**.

Each economic activity is assessed on the basis of technical screening criteria. So far, these criteria have been published and put into law for the six environmental objectives.

An economic activity is considered taxonomy-eligible if it complies with the description of the activity provided. An economic activity is considered taxonomy-aligned if it complies with the technical screening criteria and it can be demonstrated that the economic activity does not violate minimum safeguards from a social perspective.

Comprehensive reporting for fiscal year 2023

Against the backdrop of the Taxonomy Regulation, GEA will report in full on the proportions of revenue, capital expenditure (CapEx) and operating expense (OpEx) attributable to taxonomy-eligible and non-taxonomy-eligible economic activities in fiscal year 2023. The proportions attributable to taxonomy-aligned and non-taxonomy-aligned economic activities will also be included.

In accordance with the legal requirements, GEA reports in 2023 on the taxonomy eligibility of all six environmental objectives (1) climate change mitigation, (2) climate change adaptation, (3) sustainable use and protection of water and marine resources, (4) transition to a circular economy, (5) pollution prevention and control, and (6) protection and restoration of biodiversity and ecosystems. The reporting also explicitly includes the new economic activities in the environmental objectives (1) and (2). In 2023, taxonomy alignment was reported solely for the first two environmental objectives.

The following assessment and reporting are based on the following regulations and publications:

- Regulation (EU) 2019/2088 dated November 27, 2019
- Taxonomy Regulation (EU) 2020/852 dated June 18, 2020
- Delegated Regulation (EU) 2021/2139 dated June 2021
- Delegated Regulation (EU) 2021/2178 dated July 2021
- Delegated Regulation (EU) 2022/1214 dated March 9, 2022
- Final Report on Minimum Safeguards of the Platform on Sustainable Finance dated October 2022
- Delegated Regulation (EU) 2023/2485 dated June 27, 2023
- Delegated Regulation (EU) 2023/2486 dated June 27, 2023

Assessment methodology

GEA is committed to playing its part in the fight against climate change and in achieving the EU's climate targets. Therefore, GEA has formed a dedicated project team comprising the Controlling, Accounting, Sustainability and Investor Relations departments, which is responsible for the structured, group-wide organization and implementation of the requirements of the Taxonomy Regulation, including the necessary reporting structures and control mechanisms. The project team reports regularly to the Chief Sustainability Officer as part of the extended management circle. The procedure was documented and established in a business process.

As part of a comprehensive top-down analysis, all of GEA's business activities were reviewed with regard to their compliance with the economic activity descriptions in environmental objectives (3), (4), (5) and (6). The newly identified activities in this top-down analysis were then discussed and verified on a bottom-up basis with Business Unit representatives and product managers. Additional activities were added where necessary. Compliance was determined for environmental objectives (3) and (4). Furthermore, the assessment of the taxonomy eligibility and alignment of the economic activities in environmental objectives (1) and (2) was reviewed. Additional activities in environmental objective (1) were identified and assessed based on the technical screening criteria as defined in the Taxonomy Regulation.

A **potential substantial contribution** for each taxonomy-eligible economic activity was still only checked individually at product level for environmental objectives (1) and (2). As part of the analysis, GEA continued to only identify economic activities that make a substantial contribution to climate change mitigation. Further information on economic activities can be found on the following pages.

The **DNSH criteria** are primarily based on legal requirements and regulations that apply in the EU and can be reviewed at the local level. Environmental requirements were discussed and assessed by the project team with local management or with central functions such as QHSE, Compliance and Risk Management. Individual criteria for assessing taxonomy alignment laid out in the Taxonomy Regulation were analyzed and assessed on a product-specific and site-specific basis. The DNSH-criteria related to the relevant appendices under the Regulation are met.

The Regulation requires a climate risk and vulnerability assessment to be performed for certain economic activities. In this context, the sites where taxonomy-relevant activities were identified were assessed with respect to the parameters and approach defined by the Regulation. New food projects in particular are frequently developed and manufactured jointly by several locations. In the year under review, following a risk-based approach, the sites that are essential for the success of the projects were assessed. The threshold applied is ten percent of the total project value. The climate risk assessment was able to rule out corresponding climate risks for all taxonomy-relevant sites. The project team ensures that the risk assessment required by the Regulation will be expanded in the future for any additional taxonomy-relevant sites.

Potential risks of water shortage and water quality impairment are identified and internally assessed with the help of the “Aqueduct Water Risk Atlas” as part of the annual, group-wide water stress analysis. Necessary measures were initiated.

The non-use of chemicals in the supply chain as defined in Appendix C of the Taxonomy Regulation is governed both by GEA's General Terms and Conditions and the Code of Conduct for Suppliers and Subcontractors. Furthermore, adherence to the above requirements is explicitly queried when new supplier contracts are entered into and as part of additional supplier audits. However, GEA cannot completely rule out the possible use and presence of chemicals under the Regulation, particularly in the case of purchased components. GEA considers the use of hazardous chemicals by upstream suppliers to be insignificant and harmless to the user in terms of quantity and concentration. Due to the technical properties of the chemicals, GEA has determined that there are no other suitable alternative materials or technologies available on the market that offer the same economical and technical contribution to the quality, safety and use of the product. The potential use of chemicals takes place exclusively under controlled conditions.

Within the scope of the assessment under the Natura 2000 network of protected areas and UNESCO World Heritage Sites, it could be excluded that taxonomy-relevant sites are located in or near biodiversity-sensitive areas. Furthermore, GEA was able to demonstrate certification in accordance with the international environmental management standard ISO 14001 for the majority of taxonomy-relevant sites, which is primarily aimed at environmental protection and environmental management.

The evaluation of the availability and application of techniques that support the transition to a circular economy was carried out for all taxonomy-relevant products, provided that the criteria according to the regulation were applicable. GEA has techniques in place that support the transition to a circular economy, for example through the design for high durability, recyclability, easy disassembly and adaptability of products manufactured. These include products that GEA has awarded the TÜV-validated Add Better label.

The **minimum safeguards** relate in particular to the OECD Guidelines, the United Nations Guiding Principles, the ILO Core Labor Standards and the Universal Declaration of Human Rights. Compliance with these principles, standards and rights is implemented and monitored on the basis of a Group-wide management approach. The particular focus is on compliance with human and employee rights, the fight against bribery and corruption as well as facilitation of fair competition and appropriate taxation. GEA has developed guidelines, processes and systems through which potential risks and violations of minimum social standards can be identified and combated. GEA is continuously developing its regulatory framework for human rights and introduced a Human Rights Policy and mandatory Human Rights Training for all employees in the year under review. In addition, GEA performs site-specific risk assessments for its own locations to identify and combat human rights violations and breaches of minimum social standards.

In the context of the Supply Chain Act, GEA ensures that the implementation of the requirements of the minimum safeguards under the Taxonomy Regulation related to human rights are monitored. All suppliers are also required to comply with GEA's Human Rights Policy. GEA reserves the right to react appropriately to suppliers violating the Code of Conduct and to take appropriate measures, such as conducting audits or due diligence checks, training and continued education measures at suppliers, as well as temporary suspension and termination of the business relationship with suppliers.

For further information, please refer to the "Sustainable Solutions," "Compliance & Corporate Governance" and „Supply Chain" sections of this report.

Data is collected on a decentralized basis by the group companies. These collect relevant revenue, capital and operating expenditure for taxonomy-eligible activities and report them to Corporate Controlling in a predetermined format. The data is consolidated and key figures collated on a centralized basis.

Notes on GEA's underlying assumptions

The Taxonomy Regulation is only applicable to GEA's economic activities to a certain extent, since the production of technologies, plant and machinery for the manufacture of beverages, food and pharmaceutical products is not included as a specific economic activity in the Taxonomy Regulation. As a system and machinery manufacturer and supplier, GEA enables customers in the food and pharmaceutical industries in particular to make a sustainable contribution to the climate neutrality of the European economy through the use of new technologies and machines. This is reflected in GEA's corporate purpose, "engineering for a better world."

As a result, the economic activity "3.6 Manufacture of other low-carbon technologies" in environmental objective (1) is considered to be of great importance to GEA. In particular, it includes technologies aimed at significantly reducing greenhouse gas emissions in other sectors of the economy – such as the already mentioned Add Better products. This product portfolio analysis classified economic activities as taxonomy-eligible if they target and demonstrably achieve significant reductions in life-cycle greenhouse gas emissions compared to the best-performing alternative technology or solution available on the market.

There are some areas which are fairly open to interpretation in connection with economic activity "3.6 Manufacture of other low-carbon technologies." This section addresses the underlying assumptions and provides information about how GEA estimated the reduction in greenhouse gas emissions.

The economic activity involves the manufacture of technologies which target and demonstrably achieve significant reductions in life-cycle greenhouse gas emissions compared to the best-performing alternative technology or solution available on the market. Greenhouse gas reductions should be determined using life cycle analyses based on standards set by the Regulation and verified by an independent third party. With reference to GEA's business model, GEA does not consider the life cycle analysis standards required by the Regulation to be appropriate in all business areas and for all technologies. The reasons for this vary, depending on the business area and technology. GEA focuses exclusively on the use phase in the life cycle analysis of certain machinery and equipment, as it is primarily the use phase of GEA's customer-specific machinery and equipment that has a significant impact on the greenhouse gas emissions of GEA's business activities. GEA developed a tool specifically to calculate the potential reductions offered by integrated solutions for production processes and utilities designed to save energy and reduce greenhouse gas emissions. The calculation is based on the standard calculation defined by the Regulation. In accordance with the Regulation, these calculations were audited by an external independent consulting firm. Since the aforementioned technologies, equipment and projects are customer-specific solutions, the methodology and accuracy of the assumptions and assessment parameters were reviewed in each case rather than the individual, quantifiable reductions pursuant to the Regulation. The audit confirmed that the calculation was accurate and appropriate.

GEA requires customer-specific information and data to perform life cycle analyses for pioneering technologies and equipment, with a particular focus on the food industry. Official analyses by scientifically recognized organizations were therefore used to calculate potential reductions in greenhouse gas emissions. As a result, GEA assumes that the calculations used to estimate the reductions in greenhouse gas emissions are sufficiently reliable.

Other facilities (such as CO_2 recovery systems in brewery plants) prevent the need for additional external purchases of CO_2 and therefore inherently lead to reduced greenhouse gas emissions. Therefore, no separate life cycle analysis is performed for these business activities. For materiality reasons, manufacturing of equipment for the production of hydrogen was not included in the reporting and not factored in when calculating the key performance indicators according to the Taxonomy Regulation.

In order to meet the formal requirements of the Taxonomy Regulation, GEA plans to reassess the feasibility of life cycle assessments for the products and technologies reported under 3.6. In order to create a sufficiently meaningful life cycle analysis, it must be determined with product managers which assumptions, estimates and other parameters can be assumed to be ideal. GEA plans to prepare life cycle analyses for all activities reported under 3.6. in the future and to have it validated externally. However, GEA continues to point out that even these life cycle analyses can only provide an indication of the reductions in life cycle greenhouse gas emissions and that the actual reductions would need to be calculated on a customer-specific and operation-dependent basis.

Although the reduction in greenhouse gas emissions is required to be substantial according to the Regulation, it does not specify any threshold. GEA assumes that any reduction will be based on technological advances rather than efficiency gains within the existing system. From GEA's point of view, a reduction of ten percent is considered substantial and therefore makes a significant contribution to climate change mitigation. However, each case must be considered on its own merits.

The reference standard – which involves taking the currently prevailing conditions on the market into account – is also questionable. Reference technology is therefore the technology predominantly available on the market. The technology must be (directly) linked to reductions in emissions and demonstrated using the life cycle analyses above. For example, GEA compares certain ovens and freezers with previous models, as these are widely available on the market and will continue to be available on the market. This approach also guarantees that the data used for the purposes of the calculation is consistently reliable.

Key taxonomy-relevant economic activities

GEA is one of the largest suppliers of systems and components to the food, beverage and pharmaceutical industries worldwide. In the context of the regulation, it is primarily operating in the areas of “manufacturing”, “energy”, “water supply, sewerage, waste management and remediation (activities)”, “information and communication” as well as “services”. In addition to GEA's value-creating activities, other activities were identified that can be classified as environmentally sustainable capital expenditure (CapEx) or operating expense (OpEx) under the Regulation. They particularly include the areas of “traffic” and “transport”, which relate to the company's own vehicle fleet as well as freight transport, “construction and real estate”, which relate to the new construction of the company's own sites and production facilities, as well as “information and communication” in connection with the provision of IT/OT data-driven solutions.

Based on the analysis, GEA identified the following economic activities defined by the Taxonomy Regulation in 2023:

Code	Economic activity under the Taxonomy Regulation	Description of the economic activity under the Taxonomy Regulation	Application of the economic activity at GEA
CCM_3.1	Manufacture of renewable energy technologies	Manufacture of renewable energy technologies, where renewable energy is defined in Article 2(1) of Directive (EU) 2018/2001	• Manufacturing of heat pumps. • Manufacturing of technologies for the production of bio diesel, bio ethanol, bio gas and hydrogenated vegetable oil (HVO) and bio mass.
CCM_3.5	Manufacture of energy efficiency equipment for buildings	Manufacture of energy efficiency equipment for buildings	• Manufacturing of refrigeration systems for buildings (such as shopping malls, airports, production plants).
CCM_3.6	Manufacture of other low carbon technologies	Manufacture of technologies aimed at substantial GHG emission reductions in other sectors of the economy, where those technologies are not covered in the economic activities 3.1 to 3.5	• Manufacturing of technologies for the development and production of alternatives to milk and meat e.g. plant-based, insect or fermented proteins, or in-vitro meat. • Design and manufacturing of customized integrated solutions for production processes and plants to reduce energy and greenhouse gas emissions. • Manufacturing of electric ovens using electric heating rods instead of industry standard direct gas burners. • Manufacturing of freezing tunnels with highly energy-efficient pre-cooling sections. • Technologies for the production of active material for lithium batteries, e.g. spray dryers for the production of cathode material as well as the crystallization of active material. • Manufacturing of plants for CO_2 recovery in breweries. • „Add Better“ - Sustainable solutions that are significantly more efficient and environmentally friendly than their predecessors.
CCM_4.25	Production of heat/cool using waste heat	Construction and operation of facilities that produce heat/cool using waste heat	• Manufacturing of waste heat recovery systems (e.g. by mechanical or thermal compression or Organic Rankine Cycle).
CCM_5.1	Construction, extension and operation of water collection, treatment and supply systems	Construction, extension and operation of water collection, treatment and supply systems	• Manufacturing of plants for the purification and reprocessing of wastewater and industrial process wastewater e.g. as drinking water and/or service water.
CCM_5.9	Material recovery from non-hazardous waste	Construction and operation of facilities for the sorting and processing of separately collected non-hazardous waste streams into secondary raw materials involving mechanical reprocessing, except for backfilling purposes	• Manufacturing of technologies for the conversion of manure into bio fertilizer and bedding from cow dung.
CCM_6.3	Urban and suburban transport, road passenger transport	Purchase, financing, leasing, rental and operation of urban and suburban transport vehicles for passengers and road passenger transport	• Leasing of factory buses.
CCM_6.4	Operation of personal mobility devices, cycle logistics	Selling, purchasing, financing, leasing, renting and operation of personal mobility or transport devices where the propulsion comes from the physical activity of the user, from a zero-emissions motor, or a mix of zero-emissions motor and physical activity. This includes the provision of freight transport services by (cargo) bicycles	• Leasing of (electric) bicycles.
CCM_6.5	Transport by motorbikes, passenger cars and light commercial vehicles	Purchase, financing, renting, leasing and operation of vehicles designated as category M1, N1, both falling under the scope of Regulation (EC) No 715/2007 of the European Parliament and of the Council, or L (2- and 3-wheel vehicles and quadricycles)	• Leasing of sales and service vehicles as well as incentive cars.
CCM_6.6	Freight transport services by road	Purchase, financing, leasing, rental and operation of vehicles designated as category N1, N2 or N3 falling under the scope of EURO VI, step E or its successor, for freight transport services by road	• Leasing of trucks for freight transportation.
CCM_7.3	Installation, maintenance and repair of energy efficiency equipment	Individual renovation measures consisting in installation, maintenance or repair of energy efficiency equipment	• Installation, maintenance, and repair of energy-efficient equipment in owned and/or leased buildings.

Code	Economic activity under the Taxonomy Regulation	Description of the economic activity under the Taxonomy Regulation	Application of the economic activity at GEA
CCM_7.4	Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	Installation, maintenance and repair of charging stations for electric vehicles in buildings and parking spaces attached to buildings	• Installation of charging stations for electric vehicles (incl. maintenance, servicing etc.).
CCM_7.5	Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	• Installation, maintenance and repair of equipment for measuring, regulating and controlling the energy performance of owned and/or leased buildings.
CCM_7.6	Installation, maintenance and repair of renewable energy technologies	Installation, maintenance and repair of renewable energy technologies, on-site	• Maintenance and repair of heat pumps and heat exchanger/heat recovery systems installed as a building services system. • Installation, maintenance and repair of solar- and photovoltaic systems.
CCM_7.7	Acquisition and ownership of buildings	Buying real estate and exercising ownership of that real estate	• Construction of a production center incl. administration building as well as warehouse and logistics areas for own use in Koszalin, Poland. • Construction of a CO_2-neutral pharmaceutical and technology center. • Leasing of (existing) buildings at GEA locations.
CCM_9.2	Research, development and innovation for direct air capture of CO_2	Research, applied research and experimental development of solutions, processes, technologies, business models and other products dedicated to the direct air capture of CO_2 in the atmosphere	• Research on and development of carbon capture plants.
WTR_2.2	Urban waste water treatment	Construction, extension, upgrade, operation and renewal of urban waste water infrastructure	• Decanter for the treatment of municipal waste water and polluted water.
CE_2.2	Production of alternative water resources for purposes other than human consumption	Construction, extension, operation and renewal of facilities for producing reclaimed water, facilities for harvesting rain and storm water and facilities for collection and treatment of grey water	• Decanters and Separators for the treatment and purification of greywater on ships for reusage.
CE_4.1	Provision of IT/OT data-driven solutions	Manufacture, development, installation, deployment, maintenance, repair or provision of professional services for design or monitoring of software and information technology or operational technology systems built for the purpose of remote monitoring and predictive maintenance, tracking and tracing software, lifecycle assessment software, design and engineering software, supplier management software and lifecycle performance management software	• Condition-based monitoring equipment to improve the efficiency and reliability of equipment and enabling plant operators optimize their performance, while focusing on the lifetime of the machines and products.
CE_5.1	Repair, refurbishment and remanufacturing	Repair, refurbishment and remanufacturing of goods	• Service technicians, who conduct preventive maintenance, troubleshooting and ad-hoc problem solving or constant service assurance.
CE_5.2	Sale of spare parts	Sale of spare parts	• Spare parts, which are either installed by a GEA service technician or by the customer, after the initial part wore out.
CE_5.5	Product-as-a-service and other circular use- and result-oriented service models	Providing customers with access to products through service models, which are either use-oriented services or result-oriented services	• Provision of production equipment for customers in the food industry for their own use.

Sustainable initiatives

Sustainable mobility concept
Promoting a sustainable mobility concept plays an important role in protecting the environment and combating climate change. Through the global “Green Fleet” initiative, GEA is taking responsibility in the fight against climate change and playing its part in achieving German and European climate targets, while also reducing its own greenhouse gas emissions footprint. The amended mobility policy stipulates that all new company cars for GEA executives in Germany must be 100 percent electric. This policy was extended to Belgium, Austria, Denmark and the Netherlands in the reporting year; it will be gradually rolled out to other countries. GEA is also investing in charging infrastructure too as part of its efforts to make its fleet more sustainable. Other measures include subsidizing electric bicycles for GEA employees and the use of electric forklifts.

Sustainable Solutions
The sustainability performance of GEA and its products is important to customers. GEA is continuously developing sustainable solutions that are significantly more efficient and environmentally compatible than their predecessors. GEA’s sustainable plants, machinery and components help customers achieve their own sustainability goals, for example to reduce their ecological footprint. At the same time, the machines enable economical and resource-efficient production over their entire life cycle.

Since 2023, these solutions have been awarded with the “Add Better” environmental label. Each individual “Add Better” label is reviewed by TÜV Rheinland, which means that it is independently validated. In terms of the Taxonomy Regulation, these solutions are therefore technologies that aim to significantly reduce greenhouse gas emissions in other sectors of the economy.

Factories of the future
In addition to developing and manufacturing sustainable technologies, products and applications, GEA develops sustainable, efficient and competitive manufacturing facilities for its own manufacturing as well as for its customers. After the first competitive, sustainable production center in Poland started production in 2022, the second “Factory of the Future” will be built in Elsdorf in the Rhineland. The construction of the new site in Elsdorf follows the same high sustainability standards as with the plant in Poland. This includes generating its own energy, as well as innovative, digital solutions for the entire value chain. This will drive continuous growth and innovation in the strategically important pharmaceutical sector.

Key Performance Indicators (KPI) under the Taxonomy Regulation

Based on the analysis of GEA's product portfolio and business activities, the following KPI defined in the Taxonomy Regulation were calculated:

in %	Dec. 31, 2023	Dec. 31, 2022	Dec. 31, 2021	Change to previous year in %
Turnover				
Taxonomy-eligible[1]	41.1	8.3	6.2	395.2
Taxonomy-aligned[2]	12.0	7.7	–	55.8
Capital expenditure				
Taxonomy-eligible[1]	58.1	37.4	6.8	55.3
Taxonomy-aligned[2]	23.1	20.7	–	11.6
Operating expense				
Taxonomy-eligible[1]	43.1	10.6	3.1	306.6
Taxonomy-aligned[2]	13.1	9.7	–	35.2

1) Due to the inclusion of the other four environmental objectives (in addition to the two existing climate objectives) in the eligibility KPIs, these KPIs are only comparable with previous years to a limited extent
2) Alignment for activities reported with a significant contribution to environmental objectives (3) and (4) has not yet been assessed.

The KPIs are presented in detail in the templates at the end of this section.

Definition of KPIs

The definitions of turnover, capital expenditure and operating expense are derived from the Taxonomy Regulation.

Associates and joint ventures are accounted for using the equity method. GEA's share in the earnings of equity-accounted investments in associates and joint ventures is recognized in the income statement within other financial income and expenses.

GEA did not issue any ecologically sustainable bonds or debt securities in the year under review.

Turnover

Revenue, as presented in the Consolidated Income Statement in the Consolidated Financial Statements of GEA Group Aktiengesellschaft of the Annual Report, represents the denominator for the KPI. The accounting policies presented in the Notes to the Consolidated Financial Statements apply accordingly. The numerator is determined based on the proportion of revenue that group companies have identified as taxonomy-eligible or taxonomy-aligned.

Capital expenditure

The additions in the fiscal year presented in the "Additions" line of this Annual Report in the statement of changes in property, plant and equipment and intangible assets, as well as additions to investment property in the fiscal year, represent the capital expenditure and thus the denominator for the KPI. The accounting policies presented in the Notes to the Consolidated Financial Statements apply accordingly. The numerator is equivalent to the proportion of the denominator which group companies have identified as taxonomy-eligible or taxonomy-aligned and meets one of the following criteria:

- There is a connection between assets and/or processes and taxonomy-eligible and/or taxonomy-aligned economic activities;
- It relates to the purchase of products from taxonomy-eligible or taxonomy-aligned economic activities and individual measures that make it possible for GEA to reduce carbon and other greenhouse gas emissions in the performance of its economic activities (primarily expenditure towards buildings and mobility), provided these measures are implemented within 18 months of the reporting date.

In 2023, an investment plan for the expansion of taxonomy-eligible economic activities is applicable for the new construction project in Elsdorf. The new construction of the competitive and sustainable production and technology center in Elsdorf covers a project period of five years and shall be finalized in 2026. The total capital expenditures amount to around EUR 81 million.

To comply with the technical screening criteria, the prescribed energy efficiency was modelled and calculated for the new building project in the USA using a suitable simulation program. The simulation takes into account the location, geometry and use of the building and was derived using standardised properties for the building envelope and building systems, such as lighting, mechanical systems and controls. Using the local specifications and program, GEA considers the calculation of the energy efficiency to be sufficiently reliable.

Taxonomy-eligible or taxonomy-aligned capital expenditure includes expenditure that is directly and exclusively attributable to taxonomy-eligible or taxonomy-aligned products, technologies and applications. Examples include machinery used exclusively to manufacture taxonomy-eligible or taxonomy-aligned products, service and sales vehicles and construction costs for new administrative buildings and production facilities.

Capital expenditure which is not directly taxonomy-eligible or taxonomy-aligned is calculated indirectly in relation to taxonomy-eligible or taxonomy-aligned revenues. This includes general expenses required to generate taxonomy-eligible or taxonomy-aligned revenues, such as machinery, IT equipment or the transport of goods. The factor of the taxonomy-eligible or taxonomy-aligned revenue KPI is applied to the total sum of capital expenditure – reduced by the portion of directly allocated capital expenditure.

There were no additions as a result of business combinations in the year under review.

Operating expense

The denominator for the KPI consists of direct, non-capitalized costs related to research and development, building renovations, leasing, maintenance and repair of machinery and equipment. The numerator is equivalent to the proportion of the denominator which group companies have identified as taxonomy-eligible or taxonomy-aligned and meets one of the following criteria:

- There is a connection between assets and/or processes and taxonomy-eligible and/or taxonomy-aligned economic activities;
- The connection relates to the purchase of products from taxonomy-eligible or taxonomy-aligned economic activities and individual measures that make it possible for the group to reduce carbon and other greenhouse gas emissions in the performance of its economic activities as well as building renovations, provided these measures are implemented within 18 months of the reporting date.

Taxonomy-eligible or taxonomy-aligned operating expenses includes expenses that are directly and exclusively attributable to taxonomy-eligible or taxonomy-aligned products, technologies and applications. Examples include research and development costs, renovation costs for buildings owned by GEA, and maintenance and repair of machinery and equipment.

Operating expenses not directly taxonomy-eligible or taxonomy-aligned are calculated indirectly in relation to taxonomy-eligible or taxonomy-aligned revenues. This relates to operating expenses required to keep the assets in functional condition. The factor of the taxonomy-eligible or taxonomy-aligned revenue KPI is applied to the total sum of operating expenses – reduced by the portion of directly allocated operating expenses.

No investment plans to expand taxonomy-eligible economic activities apply.

Development and explanation of KPIs

As in the previous year, the calculation of the KPIs is based on taxonomy-eligible or taxonomy-aligned data, some of which was retrieved from the accounting systems. In addition, as in the previous year, manual disclosures from the divisions and business units are required. These disclosures are requested on a centralized basis by Corporate Controlling using a semi-automated SAC tool and consolidated for the purpose of calculating the key figures. The key figures are then calculated manually. This tool replaces the Excel template used in the previous year.

As in the previous year, no training costs were included in operating expenditure in the year under review. The analysis of training expenses with a taxonomy-eligible or taxonomy-aligned purpose requires a high administrative effort. At the same time, its impact on the KPI is not considered material, and is therefore not carried out. This does not have any significant impact on the operating expense indicator. As a result, GEA assumes that the calculations used to estimate the indicators are sufficiently reliable.

The taxonomy-eligible key revenue figure increased from 8.3 percent in the previous year to 41.1 percent. Among other things, the improvement results from the inclusion of revenue sales of sustainable “Add Better” solutions. Apart from that, service sales and the spare parts business are contributing to the increase in the key sales figure for the first time with a contribution to environmental objective (4), although alignment has not yet been verified. Moreover, an increase in the taxonomy-eligible revenue figure results from revenue increases in connection with the production of other low-carbon technologies. This includes new food projects, plants for the production of active material for lithium batteries for the automotive sector, heat pumps, plants for water extraction, treatment and supply as well as integrated solutions for production processes and supply facilities to reduce energy and greenhouse gas emissions.

The taxonomy-aligned revenue KPI amounts to 12.0 percent (previous year: 7.7 percent) and mainly comprises the aforementioned revenue areas. The increase in the key figure is largely attributable to the revenue recognition of “Add Better”. The service revenue reported for the first time and the spare parts business with a contribution to environmental objective (4) have not yet been considered with regard to taxonomy alignment.

The taxonomy-eligible CapEx figure increased from 37.4 percent to 58.1 percent compared to the previous year. This is mainly due to the attributable indirect capital expenditures in connection with the service and spare parts business and with sustainable “Add Better” solutions. Furthermore, capital expenditures include development costs for the new production center in Janesville, USA, and for the planned technology center in Elsdorf, Germany. Continuous investments in an electronic sustainable vehicle fleet and investments in energy-efficient building fit-out as well as machinery and equipment for the New Food business further increased the CapEx-KPI.

The taxonomy-aligned CapEx KPI is 23.1 percent (previous year: 20.7 percent). The difference between the CapEx KPI for taxonomy eligibility and for taxonomy alignment is mainly the result of leasing for own buildings that do not yet comply with energy efficiency requirements set out by the regulation. It is also attributable to the classification of the electric vehicle fleet as a taxonomy-eligible investment only, as the criteria for alignment regarding tires are not met and therefore cannot be reported as taxonomy-aligned. Moreover, alignment has not yet been assessed for the activities reported for the first time with a substantial contribution to environmental objectives (3) and (4).

The taxonomy-eligible OpEx figure of 43.1 percent has likewise increased substantially compared to the previous year (previous year: 10.6 percent). The taxonomy-eligible operating expenses include the installation, maintenance and repair of energy-efficient equipment in own buildings as well as the maintenance as well as repair of own solar and photovoltaic systems and taxonomy-relevant plant and machinery. In 2023, the reported activities with a contribution to environmental objectives (3) and (4) contribute to an increase in the key figure for the first time, although they are not yet taken into account for alignment. The taxonomy-aligned OpEx KPI amounts to 13.1 percent and mainly comprises the aforementioned types of expenses.

Generally, the increase in the taxonomy-eligible revenue figures also led to an increase in the CapEx and OpEx KPI since calculations of capital expenditures as well as operating expenses are proportionately based on the taxonomy-relevant revenue.

Further information

When identifying taxonomy-eligible or taxonomy-aligned economic activities, GEA’s product portfolio was consistently assigned to only one economic activity within the meaning of the Regulation in order to prevent double counting. Double counting was also avoided by only taking into account external revenue in the denominator for the revenue KPI in situations where multiple divisions were involved in a taxonomy-relevant activity, and this led to intercompany revenue. The clear allocation of economic activities also prevented double counting of capital expenditure and operating expense.

Where revenue, CapEx and OpEx could not be fully allocated to a taxonomy-eligible or taxonomy-aligned activity, these expenses were allocated based on appropriate parameters or reasonable and transparent assumptions. Examples of appropriate parameters for CapEx or OpEx include production output or machine hours. If such information is unavailable, an appropriate allocation is made based on alternative parameters such as future revenue.

Proportion of revenue from products or services associated with taxonomy-aligned or taxonomy-eligible economic activities – disclosure for fiscal year 2023[1]

Financial year N			Year	Substantial contribution criteria						DNSH criteria (‚Does Not Significantly Harm')									
Economic activities (1)	Code (2)	Turnover (3)	Proportion of turnover, year N (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Minimum safeguards (17)	Proportion of Taxonomy aligned (A.1.) or eligible (A.2.) turnover, year N-1 (18)	Category (enabling activity) (19)	Category (transitional activity) (20)
Text		k Euro	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY ELIGIBLE ACTIVITIES																			
A.1 Environmentally sustainable activities (Taxonomy-aligned)																			
Manufacture of renewable energy technologies	CCM 3.1	38,862	0.7	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.6	E	
Manufacture of energy efficiency equipment for buildings	CCM 3.5	12,959	0.2	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.2	E	
Manufacture of other low carbon technologies	CCM 3.6	454,617	8.5	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	4.4	E	
Production of heat/cool using waste heat	CCM 4.25	469	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.1		
Construction, extension and operation of water collection, treatment and supply systems	CCM 5.1	59,317	1.1	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	1.0		
Material recovery from non-hazardous waste	CCM 5.9	77,368	1.4	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	1.6		
Research, development and innovation for direct air capture of CO_2	CCM 9.2	261	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.0	E	
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**643,853**	**12.0**	**12.0**													**7.7**		
Of which Enabling		**506,699**	**9.4**	**9.4**													**5.2**	**E**	
Of which Transitional		**0**	**0.0**	**0.0**													**0.0**		T
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
Manufacture of other low carbon technologies[2]	CCM 3.6	500	0.0	EL	N/EL	N/EL	N/EL	N/EL	N/EL								-		
Construction, extension and operation of water collection, treatment and supply systems[2]	CCM 5.1	-	-	N/A	N/A	N/A	N/A	N/A	N/A								0.3		
Retrofitting of sea and coastal freight and passenger water transport	CCM 6.12	-	-	N/A	N/A	N/A	N/A	N/A	N/A								0.3		
Urban Waste Water Treatment	WTR 2.2	803	0.0	N/EL	N/EL	EL	N/EL	N/EL	N/EL								-		

Financial year N		Year		Substantial contribution criteria						DNSH criteria (‚Does Not Significantly Harm')									
Economic activities (1)	Code (2)	Turnover (3)	Proportion of turnover, year N (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Minimum safeguards (17)	Proportion of Taxonomy aligned (A.1.) or eligible (A.2.) turnover, year N-1 (18)	Category (enabling activity) (19)	Category (transitional activity) (20)
Text		k Euro	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
Production of alternative water resources for purposes other than human consumption	CE 2.2	43,259	0.8	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Provision of IT/OT data-driven solutions and software	CE 4.1	4,805	0.1	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Repair, refurbishment and remanufacturing	CE 5.1	408,832	7.6	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Sale of spare parts	CE 5.2	1,107,706	20.6	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Product-as-a-service and other circular use- and result-oriented service models	CE 5.5	193	0.0	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**1,566,098**	**29.1**	**0.0%**		**0.0%**	**29.1%**										**0.6**		
A. Turnover of Taxonomy eligible activities (A.1+A.2)		**2,209,951**	**41.1**	**12.0%**		**0.0%**	**29.1%**										**8.3**		
B. TAXONOMY NON-ELIGIBLE ACTIVITIES																			
Turnover of Taxonomy non-eligible activities		**3,164,040**	**58.9**																
Total (A+B)		**5,373,991**	**100.0**																

1) When using rounded amounts and percentages, minor differences may occur due to standard rounding rules.
2) The activity is taxonomy-eligible in its entirety. However, only a proportion of it is taxonomy-aligned. Therefore, the activity may be reported under both A1 and A2. However, only the proportion reported under A1 may be counted as taxonomy-aligned in the turnover KPI of the non-financial undertaking.

Economic activities that contribute to multiple environmental objectives

Environmental objectives (in %)	Taxonomy aligned per objective	Taxonomy eligible per objective
CCM	12.0	12.0
CCA	0.0	0.0
WTR	0.0	0.0
CE	0.0	29.1
PPC	0.0	0.0
BIO	0.0	0.0

Proportion of CapEx from products or services associated with taxonomy-aligned or taxonomy-eligible economic activities – disclosure for fiscal year 2023[1]

Financial year N			Year	Substantial contribution criteria						DNSH criteria (‚Does Not Significantly Harm')									
Economic activities (1)	Code (2)	CapEx (3)	Proportion of CapEx, year N (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and eco-systems (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and eco-systems (16)	Minimum safe-guards (17)	Proportion of Taxono-my aligned (A.1.) or eligible (A.2.) CapEx, year N-1 (18)	Category enabling activity (19)	Category tran-sitional activity (20)
Text		k Euro	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY ELIGIBLE ACTIVITIES																			
A.1. CapEx of environmentally sustainable activities (Taxonomy-aligned)																			
Manufacture of renewable energy technologies	CCM 3.1	1,470	0.5	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.6	E	
Manufacture of energy efficiency equipment for buildings	CCM 3.5	622	0.2	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.7	E	
Manufacture of other low carbon technologies	CCM 3.6	20,272	7.1	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	4.8	E	
Production of heat/cool using waste heat	CCM 4.25	18	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.2		
Construction, extension and operation of water collection, treatment and supply systems	CCM 5.1	2,645	0.9	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.7		
Material recovery from non-hazardous waste	CCM 5.9	4,808	1.7	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	1.5		
Operation of personal mobility devices, cycle logistics	CCM 6.4	57	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.0		
Transport by motorbikes, passenger cars and light commercial vehicles	CCM 6.5	600	0.2	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.7		
Installation, maintenance and repair of energy efficiency equipment	CCM 7.3	1,851	0.6	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.5	E	
Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	CCM 7.4	2,176	0.8	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.3	E	
Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	CCM 7.5	30	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.1	E	
Installation, maintenance and repair of renewable energy technologies	CCM 7.6	6,436	2.3	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.7	E	
Acquisition and ownership of buildings	CCM 7.7	23,806	8.4	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	9.9		
Research, development and innovation for direct air capture of CO_2	CCM 9.2	1,082	0.4	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.0	E	

Financial year N			Year	Substantial contribution criteria						DNSH criteria (‚Does Not Significantly Harm')									
Economic activities (1)	Code (2)	CapEx (3)	Proportion of CapEx, year N (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and eco-systems (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and eco-systems (16)	Minimum safe-guards (17)	Proportion of Taxono-my aligned (A.1.) or eligible (A.2.) CapEx, year N-1 (18)	Category enabling activity (19)	Category tran-sitional activity (20)
Text		k Euro	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**65,871**	**23.1**	**23.1**													**20.7**		
Of which Enabling		**33,939**	**11.9**	**11.9**													**7.7**	**E**	
Of which Transitional		**0**																	**T**
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
Manufacture of other low carbon technologies²	CCM 3.6	18	0.0	EL	N/EL	N/EL	N/EL	N/EL	N/EL								-		
Construction, extension and operation of water collection, treatment and supply systems²	CCM 5.1	-	-	N/A	N/A	N/A	N/A	N/A	N/A								0.2		
Urban and suburban transport, road passenger transport	CCM 6.3	491	0.2	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.4		
Transport by motorbikes, passenger cars and light commercial vehicles²	CCM 6.5	30,540	10.7	EL	N/EL	N/EL	N/EL	N/EL	N/EL								6.8		
Freight transport services by road	CCM 6.6	96	0.0	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0.0		
Retrofitting of sea and coastal freight and passenger water transport	CCM 6.12	-	-	N/A	N/A	N/A	N/A	N/A	N/A								0.2		
Installation, maintenance and repair of energy efficiency equipment²	CCM 7.3	-	-	N/A	N/A	N/A	N/A	N/A	N/A								0.4		
Acquisition and ownership of buildings²	CCM 7.7	7,161	2.5	EL	N/EL	N/EL	N/EL	N/EL	N/EL								8.6		
Urban Waste Water Treatment	WTR 2.2	30	0.0	N/EL	N/EL	EL	N/EL	N/EL	N/EL								-		
Production of alternative water resources for purposes other than human consumption	CE 2.2	1,663	0.6	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Provision of IT/OT data-driven solutions and software	CE 4.1	2,269	0.8	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Repair, refurbishment and remanufacturing	CE 5.1	15,434	5.4	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Sale of spare parts	CE 5.2	41,808	14.7	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Product-as-a-service and other circular use- and result-oriented service models	CE 5.5	7	0.0	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		

Financial year N		Year		Substantial contribution criteria						DNSH criteria (‚Does Not Significantly Harm')									
Economic activities (1)	Code (2)	CapEx (3)	Proportion of CapEx, year N (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and eco-systems (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and eco-systems (16)	Minimum safe-guards (17)	Proportion of Taxono-my aligned (A.1.) or eligible (A.2.) CapEx, year N-1 (18)	Category enabling activity (19)	Category tran-sitional activity (20)
Text		k Euro	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**99,519**	**34.9**	**13.5%**		**0.0%**	**21.5%**										**16.7**		
CapEx of Taxonomy eligible activities (A1+A2)		**165,390**	**51.1**	**36.6%**		**0.0%**	**21.5%**										**37.4**		
B. TAXONOMY NON-ELIGIBLE ACTIVITIES																			
CapEx of Taxonomy non-eligible activities		**119,401**	**41.9**																
Total (A+B)		**284,791**	**100.0**																

1) When using rounded amounts and percentages, minor differences may occur due to standard rounding rules.
2) The activity is taxonomy-eligible in its entirety. However, only a proportion of it is taxonomy-aligned. Therefore, the activity may be reported under both A1 and A2. However, only the proportion reported under A1 may be counted as taxonomy-aligned in the CapEx KPI of the non-financial undertaking.

Economic activities that contribute to multiple environmental objectives

Environmental objectives (in %)	Taxonomy aligned per objective	Taxonomy eligible per objective
CCM	23.1	36.6
CCA	0	0
WTR	0	0
CE	0	21.5
PPC	0	0
BIO	0	0

Proportion of OpEx from products or services associated with taxonomy-aligned or taxonomy-eligible economic activities – disclosure for fiscal year 2023[1]

Financial year N		Year		Substantial contribution criteria						DNSH criteria (‚Do No Significant Harm')									
Economic activities (1)	Code (2)	Absolute OpEx (3)	Proportion of OpEx (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and eco-systems (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and eco-systems (16)	Minimum safe-guards (17)	Proportion of Taxono-my aligned (A.1.) or eligible (A.2.) OpEx, year N-1 (18)	Category (enabling activity) (19)	Category (transiti-onal activity) (20)
Text		k Euro	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY ELIGIBLE ACTIVITIES																			
A.1 Environmentally sustainable activities (Taxonomy-aligned)																			
Manufacture of renewable energy technologies	CCM 3.1	1,272	0.8	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.8	E	
Manufacture of energy efficiency equipment for buildings	CCM 3.5	380	0.2	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.1	E	
Manufacture of other low carbon technologies	CCM 3.6	13,257	8.2	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	4.3	E	
Production of heat/cool using waste heat	CCM 4.25	242	0.2	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.5		
Construction, extension and operation of water collection, treatment and supply systems	CCM 5.1	2,562	1.6	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	1.4		
Material recovery from non-hazardous waste	CCM 5.9	2,725	1.7	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	1.9		
Operation of personal mobility devices, cycle logistics	CCM 6.4	7	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.0		
Installation, maintenance and repair of energy efficiency equipment	CCM 7.3	322	0.2	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.5	E	
Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	CCM 7.4	4	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.0	E	
Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	CCM 7.5	20	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.0	E	
Installation, maintenance and repair of renewable energy technologies	CCM 7.6	7	0.0	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.0	E	
Research, development and innovation for direct air capture of CO_2	CCM 9.2	319	0.2	Y	N/EL	N/EL	N/EL	N/EL	N/EL	N/A	Y	Y	Y	Y	Y	Y	0.0	E	

Financial year N			Year	Substantial contribution criteria						DNSH criteria ('Do No Significant Harm')									
Economic activities (1)	Code (2)	Absolute OpEx (3)	Proportion of OpEx (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and eco-systems (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and eco-systems (16)	Minimum safe-guards (17)	Proportion of Taxono-my aligned (A.1.) or eligible (A.2.) OpEx, year N-1 (18)	Category (enabling activity) (19)	Category (transiti-onal activity) (20)
Text		k Euro	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
OpEx of env.sustainable activities (Taxonomy-aligned (A.1)		**21,117**	**13.1**	**13.1**													**9.7**		
Of which Enabling		**15,581**	**9.6**	**9.6**													**5.7**	**E**	
Of which Transitional		**0.0**	**0.0**	**0.0**													**-**		**T**
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
				EL; N/EL	**EL; N/EL**	**EL; N/EL**	**EL; N/EL**	**EL; N/EL**	**EL; N/EL**										
Manufacture of other low carbon technologies²	CCM 3.6	15	0.0	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0		
Construction, extension and operation of water collection, treatment and supply systems²	CCM 5.1	-	-	N/A	N/A	N/A	N/A	N/A	N/A								0.3		
Retrofitting of sea and coastal freight and passenger water transport	CCM 6.12	-	-	N/A	N/A	N/A	N/A	N/A	N/A								0.3		
Installation, maintenance and repair of energy efficiency equipment²	CCM 7.3	-	-	N/A	N/A	N/A	N/A	N/A	N/A								0.3		
Urban Waste Water Treatment	WTR 2.2	23	0.0	N/EL	N/EL	EL	N/EL	N/EL	N/EL								-		
Production of alternative water resources for purposes other than human consumption	CE 2.2	1,256	0.8	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Provision of IT/OT data-driven solutions and software	CE 4.1	3,021	1.9	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Repair, refurbishment and remanufacturing	CE 5.1	11,914	7.4	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Sale of spare parts	CE 5.2	32,163	19.9	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		
Product-as-a-service and other circular use- and result-oriented service models	CE 5.5	6	0.0	N/EL	N/EL	N/EL	EL	N/EL	N/EL								-		

Financial year N			Year	Substantial contribution criteria						DNSH criteria ('Do No Significant Harm')									
Economic activities (1)	Code (2)	Absolute OpEx (3)	Proportion of OpEx (4)	Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and eco-systems (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and eco-systems (16)	Minimum safe-guards (17)	Proportion of Taxono-my aligned (A.1.) or eligible (A.2.) OpEx, year N-1 (18)	Category (enabling activity) (19)	Category (transiti-onal activity) (20)
Text		k Euro	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**48,398**	**30.0**	**0.0%**		**0.0%**	**30.0%**										**0.9**		
Total (A.1 + A.2)		**69,514**	**43.1**	**13.1%**		**0.0%**	**30.0%**										**10.6**		
B. TAXONOMY NON-ELIGIBLE ACTIVITIES																			
OpEx of Taxonomy non-eligible activities (B)		**91,857**	**56.9**																
Total (A+B)		**161,371**	**100.0**																

1) When using rounded amounts and percentages, minor differences may occur due to standard rounding rules.
2) The activity is taxonomy-eligible in its entirety. However, only a proportion of it is taxonomy-aligned. Therefore, the activity may be reported under both A1 and A2. However, only the proportion reported under A1 may be counted as taxonomy-aligned in the OpEx KPI of the non-financial undertaking.

Economic activities that contribute to multiple environmental objectives

Environmental objectives (in %)	Taxonomy aligned per objective	Taxonomy eligible per objective
CCM	13.1	13.1
CCA	0	0
WTR	0	0
CE	0	30.0
PPC	0	0
BIO	0	0

Template 1 Nuclear and fossil gas related activities

Row	Nuclear energy related activities	
1	The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle	No
2	The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies	No
3	The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades	No
	Fossil gas related activities	
4	The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels	No
5	The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels	No
6	The undertaking carries out, funds or has exposures to construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels	No

OPPORTUNITIES AND RISK REPORT

Opportunity and risk management targets

As an international company, GEA faces increasingly stringent regulatory requirements, higher stakeholder expectations, and a more volatile market environment, which is reflected in shorter innovation and production cycles with increased competitive intensity.

Considering this development, the systematic and uniform identification, assessment, and management of opportunities and risks across the group constitutes an ongoing task for GEA and is an integral part of the group's various workflows.

For GEA, the group-wide opportunity and risk management system is an integral part of value-oriented corporate governance, contributing to the group's long-term viability and its successful development. GEA defines opportunities as positive and risks as negative deviations from planned short-term operational and long-term strategic targets.

The key variables for the assessment of opportunities and risks are the amount of the potential success or loss and their probability of occurrence. The probability of occurrence refers to the estimated probability or statistically expected value for the occurrence of a certain event in a specific period in the future. The expected value of the success or loss is determined by multiplying these two figures. The result is calculated to provide current and target values.

The current value describes the maximum success/loss that results if, in the event of the occurrence of an opportunity/risk, control measures do not take effect because they either do not exist or do not function as planned. The target value of an opportunity/risk describes the potential success/loss that results if existing control measures take effect when an opportunity/risk occurs. The target value is calculated by subtracting (in case of risks) or adding (in case of opportunities) the evaluated control measure from or to the current value, considering the costs for the respective control measures.

GEA's medium-term planning is a key component in its approach to managing opportunities and risks. This process is used to prepare decisions on core technologies and markets, along with the corresponding allocation of resources. The objective is to ensure stability by diversification and by concentration on future markets. At the same time, developments that may jeopardize GEA's continued existence should be identified at an early stage.

Opportunities and risks arising from significant operating decisions – for example by accepting certain orders and implementing capital expenditure projects – are assessed and hence actively managed by the relevant departments and decision-makers at all group levels and in all functional units in a decision-making process that takes materiality criteria into account.

By integrating opportunity and risk information into existing planning and management processes, GEA is able to identify potential opportunities and risks on an aggregated level at an early stage and increase planning certainty for future development.

By regularly and systematically analyzing and managing opportunities and risks, GEA not only complies with the German regulatory requirements under the Aktiengesetz (AktG – German Stock Corporation Act), but also provides a comprehensive management tool within the group that focuses on maintaining and increasing enterprise value. The opportunity and risk management process is supported by an audit-compliant IT solution that forms the basis for management reporting at the various group levels.

Overall assessment of the opportunity and risk position and changes compared with the previous year

The identified risks from operating activities and the potential negative impact on earnings did not change to any significant degree compared with the previous year. However, as a globally active group, GEA's business activities face adverse effects from geopolitical developments and macroeconomic trends.

International conflicts or shifts in economic or political circumstances that adversely impact the group's production sites or markets could pose a significant risk. GEA continuously monitors geopolitical developments to enable it to proactively implement any risk mitigation measures and thus ensure the successful continuity of its global operations.

GEA's strategic orientation has proven resilient in the face of the highly volatile economic environment of the past few years. Moving forward, GEA will continue to position itself as a provider of sustainable solutions for the food, beverage, and pharmaceutical industries. This strategy is substantiated by the seven key levers of "Mission 26", which aims to accelerate profitable growth in the main sales markets by 2026. Unlocking and utilizing these operational opportunities is a central pillar of GEA's business activities.

The structure of GEA, with its regional diversification, continues to provide substantial protection against the clustering of individual risks into a substantial risk that could jeopardize the group's continuity. Furthermore, the group is not significantly dependent on individual suppliers or customers.

An analysis based on the current medium-term planning (period of 3 years) shows that the opportunity and risk situation has not materially changed compared with the previous year. No new risks have been identified that could have a potentially critical impact on the result of operations from the current standpoint.

In addition, the group-wide risk landscape, as well as the Executive Board's assessment, confirm that no risks have been identified that could endanger the company's continued existence as a going concern in the current forecast period. In its overall assessment of the risk landscape and supported by the result of a risk-bearing capacity analysis at Group level, there are no risks or risk combinations that could endanger the group's continued existence. It is also estimated that these risks unlikely to arise in the foreseeable future.

Opportunity and risk management system

At GEA, the five divisions run the operating business and have global responsibility for revenue and profitability. These divisions are each organized into up to five business units. The Global Corporate Center supports the divisions/business units with financial, legal, technical, and other services. The global focus of the divisions and the Global Corporate Center is complemented by the country organizations, which provide the necessary market proximity and required organizational infrastructure.

The aim of GEA's group-wide opportunity and risk management system is to identify the main opportunities and risks in these operating and central business units at an early stage, analyze their main influencing factors, adequately assess their impacts, identify actions to exploit opportunities and minimize risks, and communicate these to the responsible decision-makers. The principles, framework, organization, and responsibilities for GEA's opportunity and risk management system are Group-wide standardized defined and are based on the international COSO II model (Committee of the Sponsoring Organizations of the Treadway Commission).

GEA has further developed its opportunity and risk management system as part of its ongoing efforts to reflect the latest regulatory requirements. Since the end of 2021, an interdisciplinary working group has been striving to improve the identification and assessment of climate risks, as well as the definition and implementation of measures to reduce these risks and enhance climate opportunities in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

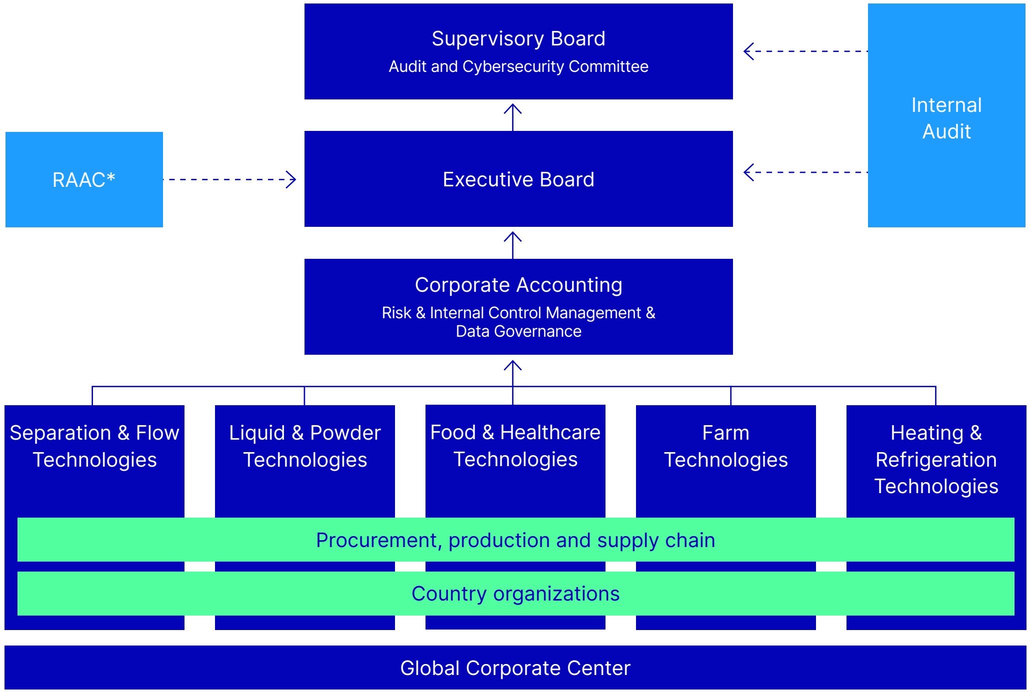
In this context, GEA has conducted qualitative and quantitative scenario analyses for various time horizons, addressing risks associated with the transition to a low-carbon economy (transition risks), as well as physical risks, which result directly from climate change. For these scenario analyses, GEA defined and quantified long-term scenarios (up to 2050) with various global warming paths. In connection with this, the categorization model for identifying sustainability risks within the GEA Group was expanded, and the risk assessment options were extended to include different mathematical distribution functions.

The main features of the opportunity and risk management system consist of the following components:

Organization and responsibilities

- The Supervisory Board is responsible for overseeing and supervising the Executive Board's activities. In connection with this, it monitors the functionality and effectiveness of corporate governance requirements within the group. The Supervisory Board and the Audit and Cybersecurity Committee respectively monitor the effectiveness of the risk management system.
- The GEA Executive Board has overall responsibility for the organization and group-wide structure of the corresponding corporate governance system. Within the GEA Executive Board, the CFO is responsible for designing the opportunity and risk management system (in particular, the opportunity and risk strategy, opportunity and risk policy, and the framework concept), all while aligning with the regulatory requirements in force.
- The central Corporate Accounting unit, specifically the Risk & Internal Control Management & Data Governance department, supports the CFO in developing a framework for group-wide opportunity and risk management, ensures the exchange of information within the GEA Group at the level of the operating and central business units and coordinates regular management reporting. It is also responsible for the preparation, dissemination, and advancement of standardized group-wide methods, tools and procedures aimed at identifying, assessing, managing, and reporting relevant opportunities and risks.
- The operating business units and group companies, as well as the process and project managers, are responsible for the continuous identification, assessment and management of opportunities and risks, as well as for communicating their findings to the responsible units.
- Internal Audit is responsible for regularly reviewing the risk management system instituted by the Executive Board in compliance with section 91(2) of the AktG.
- In accordance with section 317(4) of the Handelsgesetzbuch (HGB – German Commercial Code), the external auditor assesses whether the Executive Board has taken the measures required under section 91(3) of the AktG to institute a monitoring system and whether the early warning system is fit for purpose.

Opportunity and risk management system organization



*) RAAC: Risk Assessment and Advisory Committees

Tools

At GEA, the opportunity and risk management system is an integral part of the group-wide corporate governance system and is based on the following elements:

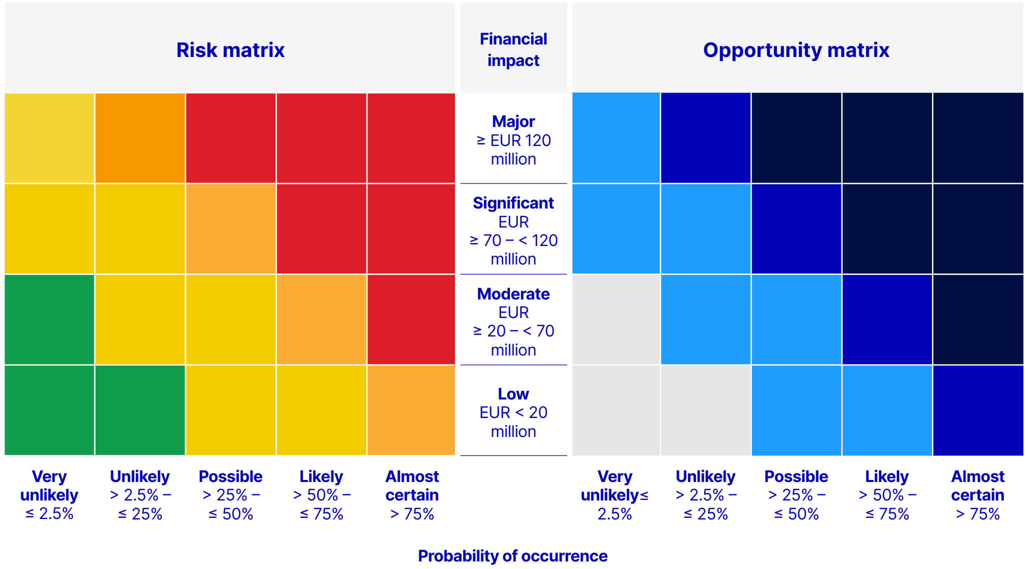
- The group-wide Enterprise Risk Management Policy sets out the principles, framework, organization, and responsibilities for GEA's opportunity and risk management system and is further specified in more detailed work instructions.
- A catalog of opportunity and risk categories supports the identification of all relevant opportunities and risks .
- Standardized assessment and reporting methods are used to identify and evaluate opportunities and risks. Opportunities and risks can be aggregated at the level of business units, divisions, and the group in order to identify group risks and opportunities at an early stage. As a rule, opportunities and risks are assessed for a one-year period. This period corresponds to the forecast period.
- Reporting limits for the identification of opportunities and risks are defined at the various group hierarchy levels. If these limits are exceeded, the opportunities and risks must be included in the periodic reporting. The reporting threshold for individual opportunities and risks is an impact on EBIT of EUR 0.1 million without considering a minimum probability of occurrence and any risk-mitigating measures. This low reporting treshold ensures that a comprehensive review of opportunities and risks is carried out and is not limited to material risks or those that might jeopardize the company's continued existence.
- A financial impact on EBIT of EUR ≥ 1.0 million per risk, without considering a minimum probability of occurrence, represents the materiality threshold for internal ad hoc risk reporting. If this materiality threshold is exceeded during risk assessment, the responsible units within the group must be informed without delay, even outside the regular reporting cycle.
- The opportunity and risk management process are defined as a uniform group-wide control loop. It comprises the following steps:
  Identification: Continuous monitoring of the opportunity/risk situation with regard to recorded and those that have not yet been identified;
  Assessment: Determination of the forecast success or loss and probability of occurrence according to the current and target method, as well as analysis of possible changes in the opportunity/risk situation over time;
  Management: Development and implementation of specific measures or revisions to current measures to exploit opportunities or manage risks from a business perspective;
  Monitoring: Analysis of the opportunity/risk situation with regard to the value and timeliness of action plans and opportunities to optimize the existing opportunity and risk management process;
  Reporting: Regular communication of relevant opportunity and risk information to the management board/committee of the operating and central business units.

Opportunity and risk management system: Tools – control loop

The risk and opportunity management cycle is a continuous process

- Risk Assessment and Advisory Committees (RAAC) have been set up to provide target-oriented information to the management bodies at the various levels of hierarchy within the group. These interdisciplinary committees represent a means of propagating the establishment of a sustainable opportunity and risk culture within the operating and central business units and ensure the harmonization and optimization of complete and timely periodic reporting. Reporting to the Executive Board encompasses evaluated risk reports, consolidated financial projections, monthly consolidated financial statements, and regular meetings of the Global Executive Committee, which enable the various opportunities and risks to be fully identified and analyzed.
- The specific requirements of the group's project business are addressed by "Risk Boards" at the operational business unit and group parent company level.
- Before a binding quotation is submitted or an agreement signed, the commercial and contractual terms of potential orders are examined in detail by specialists from various departments to avoid taking on uncontrollable risks.
- The opportunity and risk management system therefore already starts before risks arise, in the form of a critical examination of the opportunity and risk profile of quotations. In the event of an inappropriate opportunity or risk profile, the signing of the contract is prohibited.
- The identification, analysis and evaluation of opportunities and risks, and the definition of specific measures to exploit opportunities and mitigate risks, as well as their ongoing monitoring, are supported by an audit-compliant web-based IT application.
- The financial impacts have been allocated to several categories for GEA's organizational units based on their average earnings contribution (EBIT) over the past three years.
- The following key figures apply for GEA:
  - Low: < EUR 20 million
  - Moderate: ≥ EUR 20 million < EUR 70 million
  - Significant: ≥ EUR 70 million < EUR 120 million
  - Major: ≥ EUR 120 million

Opportunities and risks matrix (net basis)



Preferred category of financial impact: EBIT
Alternative categories of financial impact: Sales, costs, cash, net income

Adequate provisions have been recognized for all identifiable risks arising from the group's operating activities provided that the recognition criteria for liabilities have been met. The following section provides details of existing risks. The assessment is based on countermeasures implemented to minimize risk (net value) in the GEA Group's risk and opportunity matrix. Risks that are not yet known or currently regarded as insignificant may also have an adverse effect on business activities.

Key features of the accounting-related internal control system (ICS)

The accounting-related ICS is an integral part of the GEA Group companies' accounting and financial reporting process. It is based on a comprehensive system of guidelines, instructions, organizational and procedural rules, business processes, and supervision to ensure the traceable implementation of and compliance with legal requirements and internal rules. The constituent parts of the ICS are intended to prevent procedural and organizational risks in financial reporting as well as in the directly or indirectly related business processes. The overall aim is to ensure the regulatory compliance of the group's accounting and financial reporting.

The GEA Group policies are stored in the GEA Policies and Procedures Center and can be directly accessed by any employee. These standardized standards within GEA help ensure that national and international regulations and the requirements and specifications of the Executive Board are met. These policies specifically aim to consider business requirements as well as legal conditions. The actual application of these standards is primarily the responsibility of the operating business units.

In order to ensure that standard procedures are established throughout the group, the following principles of GEA's ICS are applied: Clearly defined areas of responsibility, the separation of functions in all areas of activity, dual signature rules, compliance with group policies and regulations, instructions and procedural requirements, the obligation to obtain comparable offers before awarding contracts above a certain size, protection of data from unauthorized access and the participation in internal training sessions.

Key measures and rules that are relevant for financial reporting and are designed to ensure standard accounting at all subsidiaries are: Accounting and account allocation manuals, a standard chart of accounts, consolidation and calculation manuals, the approval of entries using the dual control principle and the restriction of certain entries to authorized persons only. The IT and Information Security departments continuously update guidelines and IT systems across the group to reflect legal and business requirements and ensure the implementation of required IT policies in line with regulatory and substantive requirements.

The Chief Information Security Officer (CISO) is responsible for ensuring the implementation of required Information Security guidelines throughout the group based on regulatory and substantive requirements.

Key features of the internal control and risk management system and statement on the appropriateness and effectiveness of these systems*

The implemented internal control and risk management system is based on a continuous improvement approach and ensures the early identification, assessment, and management of those risks and opportunities that could materially influence the company's ability to achieve its strategic, operating, financial and compliance-related objectives.

The Internal Control System is used to ensure the following:

- Compliance with laws and regulations
- Security of company assets / prevention of the loss of assets
- Profitability and efficiency of business processes
- Prevention, mitigation and identification of deficiencies and irregularities.

GEA's Internal Control System was established and structured based on the internationally recognized COSO model (Committee of the Sponsoring Organizations of the Treadway Commission). This model is a framework for establishing internal controls in business processes. The GEA Group has implemented the 2013 version "Internal Control – Integrated Framework".

The Risk & Internal Control Management & Data Governance department in the Corporate Accounting unit develops the requirements for the internal control and risk management system on a continuous basis. An annual structured survey (self-assessment questionnaire (SAQ)) is conducted to determine whether all required ICS components are adequately implemented in the respective companies. Within these companies, local management is responsible that a formalized internal control system in accordance with the ICS rules and regulations applicable throughout the Group is implemented. These rules and regulations, which are largely based on group policies, describe the principles and structures of the Internal Control System within GEA Group.

*) This statement of the Executive Board is a disclosure required by GCGC 2022; because this disclosure is extraneous to the management report, it is not subject to the audit.

These ICS standards help ensure that national and international regulations and the requirements and specifications of the Executive Board are met in full.

The functionality of the local ICS is reviewed and confirmed annually by the local management of the relevant companies. The companies to be audited are identified and selected each year through a centrally conducted scoping process based on quantitative and qualitative criteria. The findings of the annual ICS audits are compiled at the Group level and communicated to the Executive Board and Audit and Cybersecurity Committee of the Supervisory Board based on their materiality.

A systematic process has been established within the risk management framework. This uses a periodic bottom-up workflow to ensure that all significant operational and central business units and global functions can identify and assess the relevant opportunities and risks and manage them in a targeted manner by implementing suitable measures to increase opportunities and minimize risks. The ICS and risk management system also comprise a suitable and effective compliance management system that is tailored to the company's specific risk situation. Further information on the topic of compliance at GEA can be found in the "Compliance" section of the Corporate Governance Statement.

The external auditor subjects the early warning system to an annual assessment in accordance with section 317(4) of the HGB. The result of this audit is presented to the Executive Board and the Supervisory Board. Process-independent monitoring is performed by the Internal Audit department.

The effectiveness of the Group's internal control and risk management system is reviewed and assessed by Internal Audit as part of its annual audit activities. Internal Audit uses the results of the opportunity and risk inventory and the ICS audits ans an element in the design of its risk-oriented audit planning and execution.

The Executive Board and the Audit and Cybersecurity Committee are regularly informed about the audits performed by Internal Audit, the results of ICS audits, opportunity, and risk management, as well as any changes in the above.

The monitoring activities conducted by the Executive Board revealed no evidence indicating inappropriateness or ineffectiveness of the internal control and risk management system in the period from January 1 to December 31, 2023.

Risks

Seven main categories, each with several sub-categories, are available to the operational and central business units for the classification of risk. The main categories provide an outline of the GEA Group's current risk landscape.

Overview of all material risks to which GEA is exposed

Material risks	Probability of occurrence	Financial impacts (net)
Legal and compliance risks		
Legal risks	unlikely	moderate
Compliance risks	possible	low
Financial Risks		
Tax risks	unlikely	significant
Currency risks	unlikely	moderate
Interest rate risks	unlikely	moderate
Credit risks	possible	low
Liquidity risks	very unlikely	low
Operational risks		
Procurement risks	possible	low
Production risks	possible	low
Sales risks	possible	moderate
Order risks	possible	moderate
Risks arising from information technology	unlikely	moderate
Risks arising from information security	possible	moderate
Personnel risks	possible	moderate
Strategic risks		
Risks arising from trade restrictions	unlikely	moderate
Acquisition, divestment, and integration risks	likely	low
Risks arising from megatrends	possible	moderate
Project risks		
Reduced project financing options for customers	possible	low
Margin risks for long-term contracts	possible	moderate
Sustainability- related risks		
Environment/Social/Corporate Governance	possible	moderate
Emerging Risks		
Risks arising from geopolitlicial instability	unlikely	moderate
Global health risks	possible	moderate

Legal and compliance risks

This category includes legal and compliance risks, with a focus on corruption, money laundering, antitrust violations, and data protection.

Legal risks

GEA Group Aktiengesellschaft, as well as the companies in which it holds a direct or indirect interest, may become involved in a large number of national and international legal disputes or regulatory proceedings in the course of their business activities. For the companies concerned, this could give rise to payment or other obligations or result in extraordinary income. In general, the outcome of individual proceedings cannot be assessed with complete confidence since all legal disputes involve a degree of uncertainty.

If deemed necessary, in light of the relevant circumstances, risk provisions are recognized in case such proceedings result in an adverse outcome. Since the outcome of these proceedings cannot be predicted with any degree of certainty, it is possible that the conclusion of the proceedings may result in income or expenses that are higher or lower than the provisions recognized.

Individual legal risks are not quantified in detail, since disclosing the specific probability of occurrences could have a material effect on the group's position in current litigation or other legal disputes.

As the legal risks are limited or hedged through appropriate countermeasures, the occurrence of these risks for GEA is generally considered to be unlikely overall, while their potential financial impact is rated as moderate.

Compliance risks

The group-wide compliance management system covers all identified material compliance risks, with a particular focus on combating corruption, money laundering and antitrust violations, as well as data protection. These risks could have a significant financial impact and damage the reputation of GEA. Additional material topics (for example, export control compliance) are addressed by the relevant specialist departments. Fundamentally, the group-wide compliance management system aims to identify risks at an early stage and mitigate them through the implementation of appropriate countermeasures. Overall, the probability of occurrence for these risks is assessed as possible, but the financial impact is rated as low.

Financial risks

This category comprises tax and financial risks .

Tax risks

GEA's central tax department has issued guidelines to ensure that tax risks are identified and minimized at an early stage. These risks are reviewed and evaluated regularly and systematically.

The applicable national tax rules may affect the use of tax loss carryforwards and thus the recoverability of the deferred taxes recognized in the consolidated financial statements and current taxation. Furthermore, future changes to the ownership structure could significantly reduce or even render impossible the use of German loss carryforwards (section 8c of the Körperschaftsteuergesetz (KStG – German Corporate Income Tax Act)). The ability to use U.S. loss carryforwards could also be restricted in the case of certain changes to the ownership structure of GEA Group Aktiengesellschaft under IRC section 382 (limitation on net operating loss carryforwards following an ownership change).

Moreover, both in Germany and abroad, there is considerable uncertainty regarding future changes to and the application of tax legislation due to both the continuing pressure to institute tax reforms and the apparent high level of scrutiny by the tax authorities.

The tax risks presented that are considered unlikely to occur could have a major impact on GEA's financial position and results of operations.

Financial risks

Due to its worldwide operations, GEA is continuously exposed to various financial risks in the course of ordinary activities, which could have a significant impact on its net assets, financial position, and results of operations. The material financial risks include currency, interest rate, credit, and liquidity risks. These risk types are mitigated through active financial risk management, using appropriate derivative and non-derivative hedging instruments.

The Executive Board of GEA Group Aktiengesellschaft has implemented an effective set of group guidelines to appropriately monitor and thus largely limit or hedge these financial risks throughout the group. These guidelines define individual objectives with regard to protecting assets, eliminating security shortfalls, and enhancing efficiency when identifying and analyzing risks, as well as the relevant organizational structures, responsibilities, and expertise. The guidelines are based on the principles of system security, separation of functions, transparency, and immediate documentation.

As the financial risks are limited or hedged through appropriate countermeasures, GEA's net risk exposure is generally considered to be low in terms of financial impact and the risks are assessed as being unlikely to occur.

(1) Currency risks

The global nature of GEA's business is characterized by significant cash flows in foreign currencies, such as the U.S. dollar or the British pound, which are subject to potential exchange rate fluctuations. Hedging and managing the currency risk associated with foreign currency exposure is an important component of the group guideline in effect and is overseen by the central Treasury & Corporate Finance unit as part of its role.

The guideline requires all group companies to hedge foreign currency items as they arise in order to fix prices on the basis of hedging rates. Currency risks are hedged for recognized hedged items, unrecognized firm commitments, and highly probable transactions.

The hedging periods are determined by the maturity of the hedged items and are usually up to 12 months, but in exceptional cases may exceed that period significantly. Despite the hedging requirement, changes in exchange rates may affect sales opportunities outside the eurozone.

The Group companies are generally required to report all outstanding exposures relating to transactions in goods and services, along with financing transactions, in major transaction currencies to GEA's central Treasury & Corporate Finance unit.

This unit is required to hedge significant positions by entering into matched-maturity derivative contracts with external banks. In addition, most intragroup borrowing arrangements in foreign currencies managed via the central Treasury & Corporate Finance unit are hedged directly.

The hedging of financial transactions and transactions conducted by subsidiaries outside the eurozone is also coordinated with the central Treasury & Corporate Finance unit. The GEA Group companies are similarly exposed to foreign currency risk whenever their cash flows are denominated in a currency other than their own functional currency. In general, these foreign currency risks are hedged using appropriate derivative instruments so that the exchange rate fluctuations from the underlying transaction are hedged by the hedging transaction over the term.

As the currency risks are limited or hedged through appropriate countermeasures, the occurrence of these risks for GEA is generally considered to be unlikely, while their potential financial impact is rated as moderate.

(2) Interest rate risks

Due to GEA's worldwide operations, liquidity is raised and invested in the international money and capital markets in different currencies (but mainly in euros), at different maturities and different interest rates. The resulting financial liabilities and investments are exposed to potential market interest rate risk, which is appropriately assessed and managed by central Financial Risk Management on an ongoing basis.

Derivative instruments may be used on a case-by-case basis as part of the risk management function to hedge interest rate risk and systematically reduce the interest rate fluctuations of the hedged items. Such interest rate hedges are only entered into by the central Treasury & Corporate Finance unit.

As the interest rate risks are limited or hedged through appropriate countermeasures, the likelihood of these risks affecting GEA is generally considered unlikely, while their potential financial impact is rated as moderate.

(3) Credit risks

Credit risk or counterparty risk relates to the full or partial default of a business partner and is characterized by their failure to meet their contractually agreed payment obligations towards GEA. The group is exposed to such default risk from both its operating business (especially in the case of trade receivables) and its financing activities (including bank deposits and other financial instruments). GEA assesses the likelihood of default before business transaction is concluded and subsequently monitors the risk on an ongoing basis.

As a preventive measure to mitigate credit risk, the financial standing of potential customers is individually ascertained via an internal risk board procedure before orders are accepted. Active receivables management, including non-recourse factoring and tailored credit insurance, are also used as ongoing measures to appropriately mitigate credit risk.

In the case of export transactions, confirmed and unconfirmed letters of credit are used alongside sureties, guarantees and cover notes from export credit agencies such as Euler Hermes. The local monitoring function is performed by the relevant group company. However, if the potential risk of default is assessed to be material, the monitoring function is escalated to Group Management in order to optimize the management of such risk or to prevent a potential accumulation of risks. Since trade receivables and contract assets are usually due from a large number of customers spanning different industries and regions, there is no concentration of risk.

In addition, a counterparty limit system for cash and cash equivalents is used by Financial Risk Management to continuously assess and manage counterparty default risk. A maximum risk limit is defined for each counterparty, which in most cases is derived from the ratings assigned by recognized credit rating agencies or from a counterparty's credit default swap spread. If the individual limit is exceeded, measures appropriate to the relevant situation are taken in order to prevent a concentration of risks.

Cash and cash equivalents are primarily deposited with banks and financial institutions with an investment grade rating of A+ to BBB– from Standard and Poor's (S&P) as of the reporting date. Based on local conditions, lower volumes of cash are also held at banks with a non-investment grade rating in certain countries. The maximum credit risk is limited to the carrying amount of the financial instruments and the contract assets.

As the credit risks are limited or hedged through appropriate countermeasures, the likelihood of these risks affecting GEA is generally considered possible, while their potential financial impact is rated as low.

(4) Liquidity risks

GEA is exposed to liquidity risk in that it may be unable to meet payment obligations because it has insufficient cash funds available at its disposal. The central Treasury & Corporate Finance unit is responsible for monitoring and managing this risk. The necessary funds are made available to the companies by Group Management accordingly.

In this context, cash flow from operating activities is to be considered the most important source of liquidity. Cash pools have been established in 17 countries in order to further optimize borrowing and the allocation of cash funds within GEA. To achieve this, the cash pools automatically balance the accounts of the participating group companies on a daily basis by crediting or debiting a target account at GEA Group Aktiengesellschaft. This largely prevents separate cash investments and borrowings by these subsidiaries. Any additional liquidity requirements are generally borrowed by GEA Group Aktiengesellschaft, which also invests surplus liquidity.

As the liquidity risks are limited or hedged through appropriate countermeasures, the occurrence of these risks for GEA is generally considered to be very unlikely and their potential financial impact is rated as low.

Operational risk

The category operational risk comprises risks related to procurement, production, sales, orders, as well as information technology, information security and personnel risks.

These l risks can take different forms. The elements of the GEA risk management system are designed to help identify emerging risks before they materialize so that appropriate measures can be implemented on a case-by-case basis to avoid negative impacts on the group's net assets, financial position, and results of operations. As a rule, potential operational risks are to be minimized by avoiding significant dependencies and ensuring a balanced mix of fixed and flexible capacities.

Procurement risk

Raw materials and other input materials are purchased by the global purchasing function to manufacture GEA products by the operating business units. Purchase prices may fluctuate depending on market conditions and impact the cost structure of GEA's products.

In 2023, prices on the raw material and industrial markets again increased globally (e.g., the price of stainless steel and carbon steel, aluminum, certain chemicals, semi-conductors, and logistics). GEA purchases raw materials either as semi-finished products (e.g., pipes, tubing, rolled coils) to be further processed at its production sites or indirectly as integrated parts of components or systems (e.g., flow components, electric drives).

Since the beginning of 2021, GEA has continuously assessed the impact of market prices on its expenses through a dedicated central team in the global purchasing function. This team actively tracks the market development of key indices (e.g., steel, oil, labor cost index, inflation rates, currencies) using trusted international sources (e.g., MEPS, LME, Bloomberg, Thomson Reuters, Eurostat, and the IMF).

Based on this information, the procurement function has implemented measures to limit the impact of market developments on GEA's profitability.

Among other things, these measures include:

- Use of active master agreements to ensure supply quantities/supply continuity
- Negotiations with suppliers to secure prices
- Transfer of certain volumes to alternative suppliers
- Modification of specifications to make alternative designs/components possible
- Passing on costs to customers (especially in the project business)

The sources used to monitor the markets and the latest reports detailing actual cost increases largely indicated a significant easing of purchase prices in the course of 2023. Consequently, GEA does not expect any further significant adverse effects in fiscal year 2024. The central team will continue to actively track the market in 2024, while the procurement function will continue to take measures to counter rising prices alongside its planned cost savings activities.

As the procurement risks are limited or hedged through appropriate countermeasures, the likelihood of these risks affecting GEA is generally considered possible, while their potential financial impact is rated as low.

Production risks

GEA's production locations could experience operational interruptions or material damage, or even temporary closure due to unfavorable local circumstances and developments, which could compromise the fulfillment of contractual obligations to GEA's customers.

GEA considers itself well positioned to handle the potential continued disruption to supply chains worldwide and the resulting longer delivery times, since – thanks to the global production and supply chain functions' extensive measures to minimize risk – the probability of occurrence is rated as possible, while the potential financial impact is rated as low.

Sales risk
GEA is generally exposed to the overall economic and political opportunities and risks in the countries and regions where the group operates. As a group that supplies process technology and components for diverse production processes, particularly in the food, beverage and pharma industries, GEA is exposed to industry-specific risks.

Certain geopolitical risks – potential risks and uncertainties resulting from political, economic, and social relations between different countries and regions – could escalate in the overall context of a fragile macroeconomic environment coupled with rising interest rates and strained monetary policy conditions. This could lead to additional adverse effects on results. Based on GEA's diversified product and customer structure, the probability of occurrence is rated as possible and the potential financial impact as moderate. This is due to GEA's overall resilience to regional crises on its main sales markets thanks to its worldwide presence.

Order risks
If a weakening of the economy leads to a decline in order intake and a reduction in sales prices below the level of fiscal year 2023, this could negatively impact earnings in the medium term due to capacity underutilization and capacity adjustment measures. The differentiated product and customer structure and the group's global orientation help to ensure that fluctuations in demand in individual submarkets only have a limited impact on GEA's overall performance. In addition, the persistently high order backlog could also have a mitigating effect on demand fluctuations over a certain time period. GEA also implemented specific countermeasures at an early stage (e.g., selective capacity adjustments). Overall, the probability of occurrence for this risk is assessed as possible and the financial impact is rated as moderate.

Information technology risks
GEA's business processes are highly dependent on its IT infrastructure and business-critical IT systems. Whether caused by internal or external factors, the failure or malfunction of these critical systems poses risks relating to confidentiality, availability, and integrity. This could negatively impact essential business processes. Extensive infrastructure measures, such as the standardization and modernization of IT devices, cloud migration and the replacement of outdated network technology, have been implemented to minimize operational risks.

At the same time, these measures have laid the foundation for a long-term scalable platform for the digitalization of business processes and development of digital products. The risk is rated as unlikely to occur, with moderate financial implications for GEA. Furthermore, longer-term programs to create new, harmonized IT applications have been launched in the areas of ERP, distribution, logistics and engineering. The global harmonization of business processes is a long-term undertaking. However, the programs have been structured in such a way that sustainable advantages for GEA are already felt at an early stage.

As part of its ongoing efforts to advance its operational efficiency and digital transformation, GEA began implementing the global SAP S/4HANA project in fiscal year 2020. One of the core elements of this project is the consolidation of the global process and ERP system landscape to create efficient and globally harmonized working methods at GEA. The old ERP-systems in 29 companies in 14 countries had been migrated to SAP S/4 HANA by the end of 2023. Alongside system migration to SAP S/4 Hana, another key focus area is the creation of harmonized structures and processes, as well as GEA's transformation into a process-oriented organization.

In addition to standardized global processes, the ongoing implementation of a master data management system underscores the importance of having uniform master data as a basis for efficient and harmonized processes. Central data management makes it possible to ensure high quality and consistent master data. This is not only essential for internal transactional processes, but also plays an important part in the development of customer-oriented value-added services.

Standardized data forms the basis for accurate analyses and innovative applications in the areas such as advanced analytics, machine learning and artificial intelligence. This, in turn, leads to enhanced competitiveness and customer satisfaction.

The global switch to SAP S/4HANA poses typical IT project risks, including schedule and budget overruns and changes to system requirements. The likelihood of the risks affecting GEA is generally considered possible overall, while their potential financial impact is rated as low.

Information security risks

GEA protects the confidentiality, integrity, and availability of information and information assets belonging to both business partners and GEA itself by means of a global Information Security Management System (ISMS) based on the ISO/IEC 27001 standard. Nevertheless, the likelihood of security risks occurring cannot be completely ruled out due to the continuously changing potential threat situation. With a possible probability of occurrence, the potential financial impact is moderate.

Personnel risks

To counter demographic risk and ensure that it continues to have adequately qualified personnel in the future, GEA has initiated a comprehensive package of preventive measures. Interdisciplinary working groups at GEA develop innovative concepts to actively offset the effects of demographic change. Dedicated and qualified employees are a critical success factor for GEA. GEA has various staff policy measures in place to counter the risk that it will be unable to fill vacant positions adequately or that it will lose skilled employees. The measures aim to position GEA as an attractive employer and generate long-term employee loyalty. The probability that vacant positions will not be filled adequately and permanently is rated as possible, with moderate financial impact for the group.

Strategic risks

This category comprises risks arising from trade restrictions as well as acquisition, divestment and integration risks, and risks associated with megatrends.

Risks arising from trade restrictions

The sanctions against Russia and Belarus due to the war in Ukraine have led to a decline in GEA's revenue on the Russian and Belarussian market. The imposition of additional sanctions may raise the risk of additional declines in revenue. However, the potential financial impact is rated as low in relation to GEA's overall income; the probability of occurrence is considered possible.

With regard to the current geopolitical developments in China and Taiwan, a risk is anticipated for GEA if the situation develops into a military conflict and/or the decoupling process between the USA and China continues. Decoupling describes a process of the USA and China gradually reducing their ties with each other through the use of state measures, sacrificing short-term gains to secure or enhance their long-term competitive position. In such a case, punitive tariffs and economic sanctions could continue to impact GEA's business in China. Further trade restrictions against China are currently considered possible. At present, the financial risk for GEA is considered to be moderate, while the probability of occurrence is rated as unlikely.

Acquisition, divestment, and integration risks

Acquisitions and divestments entail risks related to the integration and/or transfer of employees, processes, technologies, and products. It cannot be ruled out, therefore, that the aims of the measures in question will not be able to be fully achieved or realized within the time frame envisaged.

Moreover, such transactions may give rise to substantial administrative and other expenses. Portfolio measures may also result in the need for additional financing and thus may impact negatively on financing requirements and the financing structure. These risks are countered by a structured approach to integration and close supervision by internal experts as well as specific training measures. Risks arising from acquisitions and divestments are rated as likely with low financial impact.

Risks arising from megatrends

The enduring financial success of GEA as a technology group depends to a large extent on its ability to offer tailored customer solutions that provide outstanding product and process efficiency. As a result, GEA must maintain and continually expand its innovation strength. GEA's "Mission 26" strategy strengthens decentralized areas of innovation and develops key technologies in a targeted manner. However, there is still a potential risk that, in some areas, new or existing competitors will bring products with better performance parameters to market maturity faster. Digital products and services are a core component of GEA's value proposition, as illustrated by GEA's self-monitoring machinery and self-optimizing plants.

GEA's "Mission 26" pools and expands on existing digital expertise so that more targeted use can be made of the corresponding opportunities. Digitalization in GEA's target markets is accompanied by increasing regulation worldwide. In this context, the European Union is planning or has implemented various regulations, including the EU Data Act, the EU AI Regulation and the Cybersecurity Resilience Act. Comparable regulations for the digitalization of industry are also being issued in other regions. The aim of these regulations is to ensure security in the digitalization of industry and to strengthen competition in the digital environment. The enhanced requirements applicable to manufacturers due to the digitalization process are addressed in GEA's "Mission 26" strategy.

The probability of risks occurring due to the failure to identify megatrends that will influence society, politics, and the economy in the future in good time is considered possible, while the potential financial impact is assessed as moderate.

Project risks

Reduced project financing options for customers

A significant proportion of GEA's business consists of projects that depend on the financing options of its customers. A general decline in demand, fluctuations in foreign exchange rates, a credit squeeze and/or a significant rise in borrowing costs could make it more difficult to implement such projects. For the same reason, existing orders could be deferred or even canceled. That probably of such risks materializing on a global scale is considered possible. The financial impact of this risk is classified as low, thanks in particular to GEA's diversified positioning.

Margin risk for long-term contracts

Long-term orders for customer-specific projects are an important element of GEA's business. The percentage of innovative products in the GEA range can also harbor technological risk. This is particularly the case with the complex solutions, machinery and equipment produced by the Liquid & Powder Technologies division – which, on account of its size or customized design, cannot always be tested in their entirety prior to roll out. In addition, multi-year warranty obligations may remain in force for several years after a project's acceptance.

Technical problems, quality problems at subcontractors and missed deadlines may lead to cost overruns. There is therefore an extensive risk management system in place at the level of the group parent company and operating business units (divisions) to closely monitor order-related risks. This comes into effect before binding quotations are submitted. Adequate provisions are recognized for all foreseeable risks in this area. That such risks will materialize is considered possible. The multi-stage approval process necessary in advance of submitting a binding quotation or signing an agreement is one of the main reasons why the financial impacts of this risk are rated as moderate.

Sustainability related risks

GEA's actions in the areas of environmental, employee and social matters, anti-corruption, and bribery matters, as well as the respect of human rights, contribute significantly to its public perception and can lead to non-financial risks. Consequently, they are recognized as additional material risks.

Since 2019, GEA has identified sites in regions experiencing water scarcity each year. To verify the resulting risks, all sites with a very high or high water scarcity risk are examined in respect of known water risks and their impact on business operations. In addition, water conservation measures have also been put in place. In 2021, GEA set a goal to develop and implement a water strategy by 2026 at these sites as part of its "Mission 26" strategy.

GEA engages in active environmental management. As part of this engagement, GEA continuously invests in environmental protection and regular decontamination works and maintains an ongoing dialog with the relevant authorities to provide information on the countermeasures it implements to minimize risk. Adequate provisions are recognized, in line with the options provided for by law, for the containment or decontamination measures required in the event contamination is identified.

Furthermore, GEA follows the recommendations of the TCFD and the associated amendments to established reporting standards on the disclosure of climate-related information. The TCFD was established by the Financial Stability Board to develop a uniform framework for reporting climate-related financial impacts, risks, and opportunities for companies. The focus is on disclosing financial risks that companies face from climate change. The process of identifying and assessing potential long-term climate risks and opportunities is supported by the use of scenario analyses. The potential risk of transitory steel price volatility on the purchasing side, as well as the opportunity of capturing additional revenue potential in the areas of alternative proteins and heat pumps, were taken into account.

With regard to physical risks, own production sites that are particularly sensitive to climate change were the focus. Details of GEA's climate-related risks and opportunities are disclosed in the appendix of the Sustainability Report*. Please see the Sustainability Report for further information on the planning assumptions and the results of the qualitative and quantitative scenario analyses conducted.

Additional environmental risks caused by historical contamination on GEA land and mining damage due to past business activities are remediated through appropriate risk-mitigation measures and supervised by internal and external specialists. Provisions for dealing with this contamination and mining damage are recognized in the balance sheet to the extent required. As part of its safety management program, GEA also reviews the risks posed by natural hazards, such as storms, floods, and earthquakes, to its largest sites by total insurance value. These sites are classified according to hazard, together with the contracted property insurer.

Other sustainability-related aspects, including hazardous activities, product liability, and the risk of human rights violations and conflict minerals, are addressed accordingly in the sections on occupational safety, sustainable solutions, supply chains, employees, and compliance in the non-financial group statement.

GEA's actions in the areas of environmental, employee and social matters, anti-corruption, and bribery matters, as well as the respect of human rights can give rise to both risks and opportunities. Although GEA rates the probability of occurrence as possible, it estimates the risk of financial impact to be moderate.

*) The GEA Sustainability Report is published as a stand-alone report – in addition to this Annual Report – and is not subject to the statutory audit.

Emerging risks for GEA and its customer industries

In light of the fast-paced, competitive business environment, GEA introduced the important category of emerging risks in the business year 2023. This category includes risks that are currently emerging or growing in significance and have potential long-term, far-reaching implications for the group. These risks are classified based on the following parameters:

- Novelty and growth in significance: Risks that have either been newly identified or whose relevance for GEA has increased markedly. These could relate to technological advances, changes in market conditions or new regulatory requirements.
- Exogenous factors: Risks arising due to external changes and events outside of the company's direct sphere of influence. These may include geopolitical risks, macro-economic trends, as well as environmental changes and social trends that could indirectly impact business operations.
- Long-term effect: Risks expected to have a significant impact on the GEA Group within a period of three to five years. These include changes that occur gradually, but which could have far-reaching consequences for the group over the long term, such as demographic shifts or long-term climate change.
- Significant impact: Risks that could considerably influence internal value creation processes at GEA. This not only concerns financial aspects, but also risks to the company's reputation, customer relationships and ability to offer innovative solutions.

To ensure effective management of these emerging risks, it is important for GEA to maintain a proactive and flexible risk management system. This requires the opportunity and risk landscape to be regularly monitored and updated, as well as the implementation of countermeasures to tackle both current and potential future challenges.

Risks arising from geopolitical instability

There has been a clear escalation in geopolitical risks in recent years, which could increasingly impact global and regional markets. These risks have developed into key factors, with the ability to influence the business decisions of international companies. In light of current developments, risks associated with geopolitical instability and the measures to mitigate these risks are presented in the emerging risks category.

For GEA, risks associated with geopolitical instability concern the potential risks and uncertainties primarily resulting from the political, economic, religious, and social relations between different countries, regions, and other groupings. These risks may arise in multiple ways and could have a considerable impact on global stability, security, and business relationships. The potential causes of geopolitical risks are many and varied. They may arise due to historical conflicts, territorial claims, ethnic or religious tensions, resource shortages, political ideologies, or many other reasons.

These risks are dynamic and may change over time, making them complex to analyze and hard to predict. Specific examples of risks arising from geopolitical instability include the conflicts between China and Taiwan, Israel and Hamas, and Russia and Ukraine.

Such conflicts frequently lead to diplomatic tensions, economic sanctions, and military conflict, which can compromise security in the region as well as international relations. Geopolitical risks can also impact national economies and private companies, particularly if they disrupt trade flows, trade barriers are established, or supply chains and production are adversely affected.

Business continuity management (BCM) and crisis management are key components of corporate governance at GEA, making it possible to continuously monitor and assess the development of geopolitical and other risks.

The conflict between China and Taiwan is currently particularly relevant. Based on our current knowledge, the probability of military escalation is currently rated as unlikely, and the potential financial impact is considered to be moderate. In addition, the potential impact of bottlenecks on group-wide supply chains caused by events such as trade restrictions or transport blockades was assessed. This assessment showed that, even in the event of a decoupling of the Chinese and/or Taiwanese market, GEA would still be in a position to maintain the production concerned with only minor limitations. The countermeasures defined to mitigate this risk include production site relocations and the use of alternative suppliers.

The current situation in the Red Sea - triggered by attacks by the Houthi militia from Yemen on merchant ships in the Red Sea - slightly increases the risk of disruption to global supply chains. Experts currently consider the risk of escalation to be low.

Significant aspects of BCM include site-specific business impact analyses and business continuity plans in preparation for potential business interruptions, emergencies, and crises. These site-specific measures are supplemented by a global Crisis Management team, which can refer to prepared scenario-based playbooks should a crisis occur. The business continuity plans and crisis management playbooks undergo regular reviews, verification, and practical testing. The preventive measures enable GEA to respond appropriately to changing geopolitical risks and other unforeseeable events as well as to maintain the stability of GEA’s business to the greatest extent possible.

Global health risks

Global health risks – for example, pandemics – pose a significant emerging risk for international companies such as GEA, which has employees and suppliers on all continents. Pandemics, which are defined as emerging, fast-spreading infectious illnesses with high rates of disease can have potentially far-reaching implications for companies like GEA and their global supply chains, as demonstrated by the COVID-19 pandemic. GEA implemented effective, targeted crisis management during the COVID-19 pandemic to create safe working conditions worldwide and ensure uninterrupted supply to customers. This included rapidly adapting working methods to guarantee employee health and safety, as well as reviewing and adapting supply chains to avoid bottlenecks and maintain productivity. A global crisis unit and specialist task force were swiftly established to support GEA’s local crisis teams with the necessary processes and guidelines, and to facilitate effective communications and decision-making.

Based on the experience of the COVID-19 pandemic, GEA has optimized its risk assessment process in the area of health, safety, and environment (HSE), and developed and implemented preventive measures to reduce risks. These measures comprise the implementation of innovative early warning technologies, employee training on pandemic prevention and management, and the improvement of communication channels. The expansion and standardization of crisis management and business continuity management (BCM) processes also played a crucial role. These processes enable GEA to prepare for and agilely respond to events such as rapidly spreading infectious diseases. They include the development of emergency plans, crisis scenario simulations, and the continuous monitoring of the global health situation.

In addition, the central HSE department receives regular updates from GEA's medical assistance partner, International SOS, on global and regional risk situations concerning potential pandemics. This information is essential, making it possible to take action and initiate appropriate crisis plans at an early stage.

Based on the diversified product and customer structure, the probability of risk occurrence for the GEA Group is rated as possible and the potential financial impact as moderate, since the group can generally operate independently of regional crises on its main sales markets thanks to its worldwide presence. This potentially moderate financial impact requires careful monitoring and the ongoing adaptation of risk management strategies to ensure the group's resilience to global challenges and sustainable business growth. Although these strategies may lead to adjustments to certain elements of the operating business units' business models, these changes are not expected to have a significant financial influence on the GEA Group.

Emerging risk trends are regularly assessed, reflecting GEA's responsiveness to dynamic global conditions and its efforts to proactively react to potential external challenges. These regular assessments make it possible to identify any changes in the risk landscape and develop corresponding risk mitigation strategies at an early stage.

Opportunities

Overall assessment of opportunities and changes compared with the previous year

GEA's end markets continue to offer a variety of opportunities for lasting positive business performance. A key task of the opportunity and risk management system is to systematically evaluate both internal and external information in order to identify opportunities at an early stage and appropriately assess the potential they offer (see "Risk and opportunity management targets" in this section). Based on that, GEA is working on specific measures aimed at transforming opportunities into real economic successes.

Unlocking and utilizing operational opportunities is a central pillar of the GEA Group's business activities. By making targeted investments in its operating business units, the group utilizes the opportunity to systematically drive forward its future growth and strengthen its position in global growth markets over the long term. Forecasting the group's economic development is based on certain assumptions. A more positive than expected overall development of these parameters could have a corresponding favorable impact on GEA's financial position and results of operations.

As part of the "Mission 26" strategy, GEA intends to expand its position in its key industries over the period to 2026 and, at the same time, use seven levers to accelerate its profitable growth and improve its customer service. Sustainability, innovation and digitalization, new food and excellence initiatives in the areas of sales, service and operations have been identified as major influencing factors. GEA is also considering targeted acquisitions. The first six initiatives are the primary means by which GEA aims to achieve the following financial goals by 2026:

- Annual organic revenue growth by an average of 4.0 to 6.0 percent
- Increase in EBITDA margin before restructuring expenses to more than 15 percent
- Increase in ROCE (Return on Capital Employed) to more than 30 percent

GEA rates the likelihood of achieving the goals of "Mission 26" as possible with significant financial opportunities.

Selected areas of "Mission 26" are presented below.

(1) Innovation & Digitalization
The innovation strategy is based on four key growth drivers that have a significant influence on the business and are of great importance to GEA's customers:

- Environmental Sustainability,
- New Food,
- Digital Solutions,
- Modularization and Configuration.

By 2026, GEA aims to significantly increase the proportion of newly developed products (products that are less than five years old). The aim is for this share to increase to 30 percent by 2026. To achieve this target, GEA will increase its research and development spending to 3.0 percent of revenue over the coming years.

More than 200 engineers, software developers and data experts work at "GEA Digital" – a matrix organization in the GEA innovation network established in 2021 – developing digital products and services in connection with new business models. A reference architecture – "GEA Cloud®" – has been created for digital services, which serves to continuously improve the availability, productivity and sustainability of customers' machinery and equipment. Together with the subscription business model, this generates non-cyclical, recurring revenue, which GEA will continue to develop in the coming years.

At the same time, information security is an important prerequisite and opportunity for the digitalization of GEA's products and internal processes as well as for generating new customer orders. GEA's current and new customers and business partners will all benefit from the information security management system (ISMS) and can be confident in both the protection of their data and uninterrupted service.

GEA believes that improving its production sites towards becoming best-in-class through digitalization, productivity and space optimization programs offers great potential. The underpinning of GEA's lean culture creates opportunities to further optimize and streamline processes in all production and administrative areas.

(2) New food
New food comprises sustainably produced food, such as plant-based milk and meat alternatives. The product range also includes in-vitro meat and precision fermented proteins, as well as high quality food ingredients. New food manufacturing processes are highly complex and can use plant-based raw materials (e.g., grains, pulses, and nuts), fungi, algae, insects, or even singular animal cells, among other things. The trend towards new food is steadily growing, as these foods are considered sustainable, safe, and ethically responsible. In addition, new food is seen as a potential basis for long-term, healthy nutrition for a growing world population. GEA intends to benefit from this trend with its broad portfolio, which covers all processing steps.

(3) Sales Excellence
As part of the Sales Excellence initiative, GEA intends to use its global regional and country organization to define an appropriate route-to-market for each business unit, to make accelerated growth in existing markets possible and open up additional growth opportunities in "white spaces" (markets with lower market penetration). In addition, the initiative aims to enhance organizational effectiveness by defining uniform sales roles and incentive systems and strengthen the organization's sales expertise through standardized sales tools and a group-wide sales handbook. This should result in average organic revenue growth of 4.0 to 5.0 percent annually from the sale of new machinery and equipment between 2022 and 2026.

(4) Service Excellence
A further target of the "Mission 26" strategy is to achieve organic growth with a CAGR of 5.0 to 6.0 percent between 2022 and 2026, while also transitioning the business from a transaction-based to a recurring model. GEA intends to positively develop the number of installed equipment through stronger sales of new machines in the coming years, significantly increasing the service potential.

To generate both growth and recurring service revenues, GEA is focusing on three levers, based on its internal performance benchmarking and a maturity assessment:

- Optimizing and expanding the offering for the basic traditional service business in the individual business units.
- Enhanced efforts to optimize and improve operating performance (e.g., excellent parts logistics, active sales channel management, etc.).
- Transforming the service portfolio into a broader solution offering that is recurring in nature (service contract configurator, subscriptions, etc.).

Each operational business unit has drawn up implementation plans and measures to systematically capitalize on the identified opportunities.

(5) Acquisitions

Although most of the “Mission 26” levers focus on enhancing organic growth, the strong cash generation means it is also possible to invest in external growth. GEA continuously monitors and actively seeks out acquisition opportunities to strengthen its portfolio – provided they appear to be value accretive and deliver targeted enhancements to GEA’s potential.

Since M&A transactions require the availability of appropriate target companies, the effects of successful acquisitions are not taken into account in the group’s medium-term objectives. However, GEA has defined clear financial guidelines for value-enhancing transactions. In this respect, external growth through acquisitions offers an additional opportunity.

Sustainability-related opportunities

GEA is convinced that the company’s sustainable and climate-friendly positioning enhances the business model’s resilience while simultaneously opening up new business opportunities. Sustainability is therefore one key lever of “Mission 26”.

As a solutions provider, GEA supports its customers’ ongoing sustainable transformation with solutions such as heat pumps and more energy- and resource-efficient products, which help significantly improve their climate and sustainability impact. GEA has launched the new “Add Better” label in connection with this target. The Add Better label identifies sustainable GEA solutions that are significantly more resource-efficient than their predecessors with regard to the environmental criteria of energy and water consumption, material and resource consumption, and greenhouse gas emissions. The efficiency improvements are calculated according to ISO standards and validated by TÜV Rheinland. GEA’s innovations to control CO_2 emissions are in demand in industries such as glass, steel, and cement. Furthermore, GEA foresees opportunities in new markets such as new food, with plant-based alternatives to meat and dairy products, where GEA solutions are already being used.

At its own sites, GEA can leverage opportunities offered by resource efficiency in production and distribution processes, as well as the expansion of climate-neutral production. Continuously improving energy efficiency in production, coupled with the use of renewable – preferably self-generated – energy, will result in GEA’s independence from energy price trends and contribute to the reduction in operating costs. The target of carbon-neutral production will have the greatest possible positive impact on all GEA production sites.

Applying the “local-for-local” principle in purchasing ensures shorter reaction times and lowers reliance on transportation, resulting in lower climate-related costs. By consistently focusing on sustainability, GEA is making an important contribution toward addressing global challenges, which has been well received by external interest groups. GEA’s commitment to sustainability is also reflected in its very good external ESG ratings and rankings.

With the focus on sustainability aspects in “Mission 26” and the strategy’s emphasis on becoming an “Attractive Employer”, GEA aims to sustainably improve its standing in the labor market. Due to the implementation of a minimum quota of women of 21 percent at the top three management levels by 2026 and the deployment of diverse talent pools underscores GEA’s commitment to diversity as a key to success and a means of securing GEA’s future talent needs.

Emerging opportunities for GEA and its customer industries

As was done for emerging risks, GEA has also introduced the important category of “emerging opportunities” for new opportunities. This category encompasses potential opportunities that are emerging or growing in significance, which could result in long-term, positive effects for the group. These risks are identified based on the following parameters:

- Novelty and growth in significance: Opportunities that have either been newly identified or whose relevance for GEA has increased markedly. These could arise due to technological advances, changes in market conditions or new regulatory requirements.
- Exogenous factors: Opportunities arising due to external developments and events outside of the company’s direct sphere of influence. These could include geopolitical developments, macro-economic trends, or environmental and social changes that open up new business opportunities.
- Long-term prospects: Opportunities expected to deliver significant positive effects for GEA within a three- to five-year period. These include developments that emerge gradually, but which could provide considerable long-term benefits for the company, such as demographic changes or sustainable environmental initiatives.
- Significant potential: Opportunities that could considerably influence internal value creation processes at GEA. This not only concerns financial aspects, but also the potential enhancement of the company’s reputation, customer relationships and capacity to develop innovative solutions.

To ensure effective management of these emerging opportunities, it is important for GEA to maintain a proactive and flexible opportunities management system. Regular monitoring and adaptation to the changing opportunities landscape, as well as implementation of strategies to ensure current and future opportunities are utilized.

Opportunities emerging from the development and use of artificial intelligence

Artificial intelligence (AI) is rapidly evolving and has already had a significant impact on a range of industries. It improves efficiency, promotes innovation, and supports data-driven decision-making. Its influence can be felt across numerous industries and has had a profound impact on day-to-day life.

AI is revolutionizing the engineering industry, particularly through the optimization of development, sales, and service processes. Its potential is particularly promising in areas of application involving big data. In the engineering industry, the continuous expansion of the Industrial Internet of Things (IIoT) in recent years, coupled with ever more data-intensive machinery and processes, has opened up massive potential for manufacturers like GEA to use AI to develop new digital solutions. At the same time, AI supports innovation in areas such as sensor technology, edge computing, robotics, and intelligent automation. GEA believes that the targeted use of AI offers numerous opportunities and advantages:

- Improved efficiency in all GEA business units: AI can help optimize production processes through improvements in automation and robotics. Intelligent systems can perform tasks such as quality control, maintenance prediction and process monitoring, resulting in efficiency gains and lower production costs. In addition, they enhance service team efficiency through predictive maintenance tools and contribute to the continuous professional development of GEA's employees, who learn to use these tools to improve design, produce more accurate simulations and support problem-solving.
- Predictive maintenance: The use of AI makes it possible to implement predictive maintenance systems. This enables GEA to carry out proactive, data-driven maintenance. Consequently, this contributes to improving plant reliability, minimizing downtime, and improving industrial process efficiency.
- Quality control: AI-based image processing systems can be used to monitor GEA products and identify quality issues in real time. The use of sensors and algorithms is further refined to monitor machinery condition. AI recognizes anomalies at an early stage and predicts maintenance requirements, resulting in reduced downtime.
- Product design optimization: AI can contribute to the development and optimization of GEA products by performing complex analyses and simulations. This accelerates the development process and results in innovative products with optimized functionality.
- Cost savings: The use of AI at different points in the value chain can reduce costs for GEA. These savings can be achieved through task automation, lower rejection rates, resource optimization and more efficient supply chain management processes. Improved supply chain processes alone offer the potential to react rapidly and proactively to changes in customer demand. Data from different sources can be analyzed and supply chain decisions adapted in real time.
- Individual customer requirements: AI may enable GEA to better adapt to individual customer requirements. Production processes can be more flexibly organized, enabling quick responses to changing market requirements or specific customer requests. The use of AI also means that customer and market data can be analyzed more quickly, accurately, and comprehensively. This makes it easier to make well-informed strategic decisions and improve long-term competitiveness.

In general terms, the use of AI at GEA offers a wide array of opportunities to enhance competitiveness, reduce operating costs, improve product quality, and adapt more flexibly to market conditions.

Opportunities arising from the digitalization of GEA's product portfolio

Digitalization offers significant potential for GEA, both in terms of internal process optimization and market development. An extensive survey conducted by GEA on this subject shows that digitalization is gaining in importance in the pharma and the food and beverage industries. GEA's customers want to see a further improvement in plant availability, productivity, and product quality, as well as sustainability in their own production. With GEA Digital, GEA has created an organization specialized in seizing the opportunities arising from sales market digitalization. A cutting-edge cloud platform has been developed with the support of market-leading providers and specialist start-up technology. Through the use of edge and cloud computing, this platform enables plant and machinery to be connected, as well as the distributed processing of significant volumes of data.

GEA Digital undertakes research and development in partnership with researchers, established IT specialists and start-ups. Through initiatives such as its membership in the "Plattform Industrie 4.0" industry association, GEA is helping shape the Fourth Industrial Revolution. Its collaboration in the digital ecosystem is underpinned by cooperation with global players like Microsoft and SAP, as well as regional organizations that create links with research institutions and start-ups, such as It's OWL (Intelligent Technical Systems OstWestfalenLippe).

GEA will continue expanding its digital product portfolio and the digital ecosystem its portfolio inhabits to develop industry-leading solutions for GEA markets that extend beyond the limits of its systems and providers. GEA is focusing particularly on standardization, which makes such applications possible. In connection with this, GEA Digital has been a member of the Industrial Digital Twin Association (IDTA) since 2023.

GEA intends to systematically utilize the opportunities offered by digitalization, particularly by those that increase customer retention through life cycle business models that generate recurring revenue.

REPORT ON EXPECTED DEVELOPMENTS

GEA's Report on Expected Developments takes into account relevant facts and events that were known at the date of preparation of the management report and that could influence the future development of its business.

Economic environment in 2024

As described in the "Report on economic position" in the section "Macroeconomic environment," GEA, as a global industrial technology company, considers growth in global gross domestic product (GDP) and respective forecasts made by the IMF to be key indicators for its own performance.

World Economic Outlook IMF (January 2024)	Forecast (percentage change)	
	2024	2023
Worldwide	3.1%	3.1%
Advanced Economies	1.5%	1.6%
Emerging markets and developing countries	4.1%	4.1%

In its January update of the World Economic Outlook for 2024, the IMF projects stable global economic growth of 3.1 percent. This forecast is based on the assumption that prices for fuels and other raw materials will drop in 2024 and that interest rates in the major economies will recede again following the sharp rise since 2022. For 2023, the IMF also assumed that the global economy will have grown by 3.1 percent, compared to 3.5 percent in 2022.

In October 2023, the IMF was still forecasting lower growth for 2024 (2.9 percent). The January forecast was 0.2 percentage points higher than the 2024 figure predicted in October 2023. This is attributable to the fact that the USA in particular, as well as several large emerging and developing countries, demonstrated greater resilience in 2023. For China, the IMF assumed that the government will provide fiscal support, which will also stimulate growth for the global economy.

For the industrialized countries, the IMF expects lower growth of 1.5 percent in 2024 than in 2023 (1.6 percent), with the euro area recovering from its low growth in 2023 and growth in the United States slowing. By contrast, stable growth of 4.1 percent is expected for emerging and developing countries in 2024 (2023: 4.1 percent).

In the industrialized countries, the IMF is forecasting lower growth of 2.1 percent in 2024 for the USA after an increase of 2.5 percent in 2023. This is a correction of 0.6 percentage points compared to the October (1.5 percent) forecast, which reflects the unexpectedly stronger growth particularly in the USA in 2023. According to the calculations, growth in the euro area will recover from its low level of 0.5 percent in 2023 to 0.9 percent in 2024. Compared to the October forecast (1.2 percent), however, growth for 2024 has been revised downward by 0.3 percentage points, which is primarily attributable to weaker than expected growth in the euro area for 2023.

For the major emerging market economies China, India, Russia and Brazil, the IMF expects growth for all four countries in 2024. The strongest increase is expected for India at 6.5 percent, followed by China at 4.6 percent, Russia at 2.6 percent and Brazil at 1.7 percent.

In light of the decline in inflation and steady growth, the IMF considers the risks to global economic growth to be largely balanced. A faster decline in inflation could lead to additional easing of financial conditions and temporarily higher growth than assumed. However, tight monetary conditions could also be prolonged by new increases in commodity prices due to geopolitical shocks, including the ongoing attacks in the Red Sea, and supply disruptions or more persistent underlying inflation. According to the IMF, a change for the worse in the real estate sector in China or tax increases and spending cuts in other major countries could also lead to growth disappointments.

Economic environment for GEA

For fiscal year 2024, GEA continues to expect the global megatrends to have a positive impact on business development. The continued growth of the world's population and the global middle class is driving up the global demand for food. At the same time, quality demands on food products are also rising. There is an increased demand for food that is healthy, functional and safe. Furthermore, the interest for efficient production methods that also conserve valuable resources is on the rise.

In the medium to long term, the United Nations expects the world's population to increase from its current level of around 8 billion people to 8.5 billion by 2030 and to almost 10 billion by 2050. Compared to 2010, the world's population has already grown by around 1 billion people and by 2 billion since 1998 (United Nations, "World Population Prospects 2022"). More than half of the assumed population growth by 2050 is concentrated in 8 countries in Africa and Asia. India has already surpassed China as the country with the largest population in 2023.

Moreover, the proportion of the world's population considered at least middle class will continue to increase, with the bulk of this growth coming from the Asia-Pacific region. By 2030, the population of the middle class there is expected to increase from 1.4 billion people in 2015 to 3.5 billion people. By comparison, the middle-class population in Africa and Central and South America will grow less strongly. The size of the middle class in Europe and North America is predicted to maintain its stable development. (Statista "Forecast of the global middle class population from 2015 to 2030").

Accordingly, GEA expects that the growth of the middle class will lead to a further increase in the number of people who can afford processed foods, beverages and dairy products. This is similarly true for pharmaceutical products.

Growth in the customer industries

Based on its own latest estimates, external reports and analyses conducted by institutions and industry associations, the following trends are forecast for GEA's main customer industries:

Food

A further increase in food demand and production was expected in 2023. Forecasts for 2024 assume that food production will see continued growth. In the medium to long term, global population growth alone is expected to drive continued an ongoing upward trend in the demand for food and the resprective production. Most of this growth will come from low- and middle-income countries. These regions are expected to see economic growth, leading to higher incomes, along with a relatively young population, faster population growth rates compared to developed nations, and a demand for food that remains unsaturated.

Food prices have surged recently, driven by an upturn in global demand after the COVID-19 pandemic, heightened industrial demand for agricultural outputs from China, escalated fertilizer costs, and increased international freight charges, alongside soaring inflation. The long-term outlook suggests that food prices will remain at a high level.

The COVID-19 pandemic also heightened consumer interest in sustainable products, as shown by the growing demand for plant-based foods and meat alternatives. Waste reduction has also become increasingly important in both the production and consumption phase. However, consumers generally remain hesitant to pay a premium for more sustainable products. This is due in particular to the increased cost of living. Consumers are attempting to reduce spending and delay or cancel non-essential purchases. Nevertheless, the commitment to sustainability among food manufacturers remains unwavering. Consumers are just a small part of the overall picture. Supply chain efficiencies are becoming an increasingly important motivating factor for companies in this area, alongside the need to adopt renewable energy sources in the wake of rising energy costs and the need to use water efficiently when producing food as the resource becomes increasingly scarce.

Analysts from Euromonitor have indicated that new weight loss medications, such as Ozempic® and Wegovy®, are unlikely to have a lasting impact on the food industry, as patients will use these medications to reduce their calorie intake out of a desire to eat healthier. There is also a level of uncertainty surrounding long-term demand for these medications due to their high price and the fact that they are not meant to be used over the long term.

Milk Production and Dairy Processing
The dairy industry continued to be significantly impacted by inflation in 2023. Input costs (such as feed for cows and energy) increased, compounded by a shortage of labor. Both factors led to reduced profits for dairy farmers and higher prices for consumers. Despite these challenges, milk production saw a slight increase over the previous year in 2023 at a global level. However, milk production within the European Union is expected to have gone down in 2023. The reduction in farm gate milk prices, coupled with persistently high production costs, continued to exert pressure on dairy farmers.

Global trade in dairy products was projected to fall in 2023 compared to 2022. This was primarily due to reduced imports by China, attributed to an increase in domestic production and higher stocks of imported dairy products. Following a significant price surge in the prior year, prices for milk on the global market declined in 2023, leading to some normalization in the dairy market. A slight recovery was noted towards the year's end 2023.

The European Union's (EU) forecasts suggest that global milk production will continue to grow at a similar rate to the last decade until 2035. While the EU has made a significant contribution to this growth historically, future increases in global milk production are expected to be driven by other countries and regions. It is projected that countries in Southeast Asia and North Africa will increase their milk production levels by approximately 3 percent annually until 2035. The key drivers for this growth are population and economic expansion. It is assumed that population growth in China will slow down. Although demand will therefore continue to develop positively, it will no longer show the growth of the last decade.

Producers of dairy products and alternatives are expected to see mild growth in 2023. Trends will stabilize after declines in 2021 and 2022. Growth in 2024 and subsequent years is forecasted to be modest and primarily driven by plant-based dairy products, albeit from a small base and mainly from North America.

Enriched as well as functional dairy products are continuing to gain in importance. Dairies are focusing on the flexible production of functional, high-value dairy products as well as the related product innovations. As a consequence, a continued strong focus on small and mid-sized investments, especially for innovative production technologies and system modifications, is still expected. Acting sustainably and using resources efficiently are also becoming increasingly important.

Beverages

Following a sharp decline due to the pandemic, demand for alcoholic beverages continued to recover in 2023, though a deceleration in growth was observed. While global growth has been significantly higher than anticipated for the second consecutive year, it still has not compensated for the losses incurred during the pandemic. Despite the increased cost of living due to inflation impacting consumption in key markets, a trend towards economizing has yet to emerge. Looking ahead, it is expected that beer consumption will increase, particularly in the Asia-Pacific, Middle East & Africa, and Latin America regions. Global production of alcoholic beverages is expected to increase in 2024.

Analysts have noted that the global soft drink industry increased its revenue in 2023 and had one of the strongest years in recent memory, even though volume growth slowed. Consumers were more price-sensitive, showing a preference for local brands and discounters over premium brands. The Middle East, Africa, and Asia are gradually overtaking North America and Europe as the primary drivers of growth. However, it is assumed that the decline will not continue. Price reductions should therefore lead to growth again in 2024. The trend of global and regional manufacturers increasingly expanding their portfolios of alcoholic and non-alcoholic beverages to participate in the growth in existing and new categories of alcoholic and alcohol-free beverages will also continue.

Pharma

The pharmaceutical market is primarily influenced by the ever-increasing number of patients - a consequence of the growing global population, higher healthcare expenditures, and the research and development of new medications. As the prevalence of diseases like diabetes continue to rise worldwide, new diseases are also emerging. Both trends are leading to an increased demand for pharmaceuticals. Due to the COVID-19 pandemic, the pharmaceutical industry worldwide focused its efforts on the development of drugs, particularly vaccines, which ultimately led to especially strong growth in global pharmaceutical production. In 2023, global pharmaceutical production levels saw a slight decline but remained at a high level. The demand for pharmaceuticals remained stable. The surge in demand during the pandemic has diminished, as has the robust demand and production of vaccines, resulting in production being scaled back in the EU over the course of the year. Cost increases due to high inflation rates are also impacting the pharmaceutical industry in the EU to some extent. Growth rates here are expected to normalize in 2024.

Global pharmaceutical production is anticipated to rise again in 2024. Growth will continue to be influenced by the expansion of the global middle class, better access to medical products, especially in the emerging markets, as well as the aging population in advanced economies. The growth is mainly being driven by innovative medicines and increasing demand for better healthcare, especially in emerging markets. The prescription drug market is dominated by original products. Growth rates have returned to pre-pandemic levels in most segments. Overall, capital expenditure in the pharmaceutical sector is expected to grow slowly in the medium term.

Chemical

After a challenging close to 2022, the chemical industry was expecting to see production rebound in 2023. However, global demand remained sluggish, leading several chemical companies to significantly lower their earnings expectations. This downturn was attributed to several factors, including slow growth in Europe, inflation in the United States, and demand failing to bounce back in China. High stock levels accumulated during the pandemic were reduced. To compensate for this decline in production, companies reduced their costs and improved their efficiency. The German Chemical Industry Association (VCI) does not expect a significant recovery to come in 2024.

However, sustainability could emerge as a key growth driver. And also, it is expected that economic policies and regulations will continue to have an impact on the chemical industry (e.g., reforms to approval procedures, PFAS regulations, UN agreement to end plastic pollution). Measures of this kind could speed up progress in terms of sustainability and the factors that will drive this (e.g., material innovation, technology). The energy transition is also the driving force behind a number of production activities which are reliant on chemicals and materials. The overall demand for chemicals and materials needed to support the energy transition is expected to increase in 2024 and beyond.

Business outlook

The outlook is based on the IMF market forecasts and other assumptions explained in "Economic environment 2024". Following an increase of 3.1 percent in 2023, the global economy is expected to grow by another 3.1 percent in 2024.

Despite the overall positive growth expectations, the current economic environment continues to be characterized by high energy, material and personnel costs compared to the times before COVID-19. GEA intends to continue meet these challenges in 2024 by adjusting the prices of its own product, project and service portfolio as well as efficiency measures. The company assumes that there will be no further military escalations beyond the war in Ukraine and the conflict in the Middle East.

Under these circumstances, GEA is very confident, from its current perspective, in realizing the financial outlook described below. This does not take into account any significant deterioration or improvement in the parameters described beyond the statements made above that could have a negative or positive impact on global economic development or GEA's business performance.

With regard to the 2024 fiscal year, GEA is expecting for the overall group:

Outlook fiscal year 2024	Forecast for 2024	2023
Revenue development (organic[1])	+2.0% to +4.0%	EUR 5.373 million
EBITDA margin before restructuring expenses	14.5% to 14.8%	14.4%
ROCE[2]	29.0% to 34.0%	32.7%

1) Adjusted for portfolio and currency translation effects
2) Capital Employed as average of the last 4 quarters

GEA is expecting the following trends to materialize for the individual divisions:

Revenue development (organic*)	Forecast for 2024	2023
Separation & Flow Technologies	+1.0% to +4.0%	EUR 1,511 million
Liquid & Powder Technologies	+2.0% to +8.0%	EUR 1,724 million
Food & Healthcare Technologies	-2.0% to +2.0%	EUR 1,029 million
Farm Technologies	+2.0% to +6.0%	EUR 784 million
Heating & Refrigeration Technologies	+3.0% to +7.0%	EUR 556 million
Consolidation	–	EUR -232 million

*) Adjusted for portfolio and currency translation effects

EBITDA margin before restructuring expenses	Forecast for 2024	2023
Separation & Flow Technologies	25.5% to 27.5%	26.2 %
Liquid & Powder Technologies	9.5% to 11.5%	10.3 %
Food & Healthcare Technologies	9.5% to 11.5%	7.6 %
Farm Technologies	13.5% to 15.5%	14.0 %
Heating & Refrigeration Technologies	11.5% to 13.5%	11.9 %
Others/Consolidation*	-1.0% to -1.5%	-1.0 %

*) In percentage of total revenue

ROCE[1] (3rd Party)	Forecast for 2024	2023
Separation & Flow Technologies	34.0% to 40.0%	37.8 %
Liquid & Powder Technologies[2]	–	–
Food & Healthcare Technologies	8.0% to 14.0%	6.7 %
Farm Technologies	24.0% to 30.0%	28.8 %
Heating & Refrigeration Technologies	34.0% to 40.0%	39.2 %

1) Capital Employed as average of the last 4 quarters
2) Due to negative capital employed ROCE in 2023 and 2024 is not meaningful

Further expectations

Dividend policy and dividend proposal

GEA has a strong and sustainable business model. As the parent company, GEA Group Aktiengesellschaft wants its shareholders to participate in this with an attractive dividend. A regular payout ratio is targeted of approximately 50 percent of consolidated earnings before restructuring expenses. Furthermore, in the interest of an attractive dividend policy, GEA aims to increase its dividend by 5 cents.

Accordingly, the Executive Board and Supervisory Board will propose to the Annual General Meeting to pay a dividend of EUR 1.00 per share for the fiscal year 2023, an increase of EUR 0.05 compared to the previous year.

Medium-term financial targets to 2026

At the end of September 2021, GEA presented its medium-term financial targets as part of “Mission 26”, which it aims to achieve by the end of fiscal year 2026. Accordingly, group revenues are expected to grow organically by an average of 4 to 6 percent annually until then (2023: 8.4 percent). The EBITDA margin before restructuring expenses is expected to increase to more than 15 percent (2023: 14.4 percent), and ROCE (ratio of EBIT before restructuring expenses to capital employed) is expected to be more than 30 percent at the end of 2026 (2023: 32.7 percent). For more details, please refer to the section “Fundamental Information about the Group”.

Summary

Due to the strong order backlog, GEA expects organic revenue growth of 2.0 to 4.0 percent and an EBITDA margin before restructuring expenses of 14.5 to 14.8 percent for fiscal year 2024. GEA anticipates that the return on capital employed (ROCE) will be within a range of 29.0 to 34.0 percent.

Düsseldorf, March 5, 2024

Stefan Klebert | Bernd Brinker | Johannes Giloth

CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Balance Sheet
as of December 31, 2023

Assets (EUR thousand)	Section	12/31/2023	12/31/2022
Property, plant and equipment	6.1	796,278	722,744
Goodwill	6.2	1,476,108	1,475,571
Other intangible assets	6.3	392,423	381,758
Other non-current financial assets	6.4	47,360	46,161
Other non-current assets	6.5	5,567	6,294
Deferred taxes	8.7	382,723	350,131
Non-current assets		**3,100,459**	**2,982,659**
Inventories	6.6	842,355	846,315
Contract assets	8.1	373,960	373,162
Trade receivables	6.7	770,888	730,945
Income tax receivables		53,499	52,002
Other current financial assets	6.4	62,261	70,429
Other current assets	6.5	124,946	131,378
Cash and cash equivalents	6.8	623,886	718,727
Assets held for sale	6.9	1,991	15,394
Current assets		**2,853,786**	**2,938,352**
Total assets		**5,954,245**	**5,921,011**

Equity and liabilities (EUR thousand)	Section	12/31/2023	12/31/2022
Issued capital		515,992	496,945
Capital reserve		1,217,861	1,217,861
Retained earnings		628,487	488,394
Accumulated other comprehensive income		34,969	77,329
Equity attributable to shareholders of GEA Group AG		**2,397,309**	**2,280,529**
Non-controlling interests		412	415
Equity	**7.1**	**2,397,721**	**2,280,944**
Non-current provisions	7.2	114,867	101,640
Non-current employee benefit obligations	7.3	634,633	605,391
Other non-current financial liabilities	7.4	205,267	216,898
Non-current contract liabilities	8.1	5,608	4,942
Other non-current liablities	7.6	685	773
Deferred taxes	8.7	106,875	110,990
Non-current liabilities		**1,067,935**	**1,040,634**
Current provisions	7.2	266,247	234,164
Current employee benefit obligations	7.3	291,439	293,117
Other current financial liabilities	7.4	135,747	260,298
Trade payables	7.5	769,036	791,777
Current contract liabilities	8.1	864,692	839,566
Income tax liabilities		65,136	80,210
Other current liabilities	7.6	96,292	96,971
Liabilities held for sale	6.9	–	3,330
Current liabilities		**2,488,589**	**2,599,433**
Total equity and liabilities		**5,954,245**	**5,921,011**

Consolidated Income Statement
for the period January 1 – December 31, 2023

(EUR thousand)	Section	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Revenue	8.1	5,373,491	5,164,714
Cost of sales		3,551,818	3,448,923
Gross profit		**1,821,673**	**1,715,791**
Selling expenses		591,427	593,170
Research and development expenses		113,007	98,275
General and administrative expenses		612,337	584,470
Other income	8.2	481,061	615,042
Other expenses	8.3	469,163	595,874
Net result from impairment and reversal of impairment on trade receivables and contract assets		-6,181	3,961
Other financial income	8.5	15,611	7,723
Other financial expenses	8.6	6,526	9,751
Earnings before interest and tax (EBIT)		**519,704**	**460,977**
Interest income	8.5	16,972	10,540
Interest expense	8.6	38,068	24,802
Profit before tax from continuing operations		**498,608**	**446,715**
Income taxes	8.7	94,012	71,673
thereof current taxes		114,879	104,926
thereof deferred taxes		-20,867	-33,253
Profit after tax from continuing operations		**404,596**	**375,042**
Profit or loss after tax from discontinued operations	**8.8**	**-11,834**	**26,386**
Profit for the period		**392,762**	**401,428**
thereof attributable to shareholders of GEA Group AG		392,765	401,430
thereof attributable to non-controlling interests		-3	-2

(EUR)		01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Basic and diluted earnings per share from continuing operations		2.35	2.13
Basic and diluted earnings per share from discontinued operations		-0.07	0.15
Basic and diluted earnings per share	**8.9**	**2.28**	**2.28**
Weighted average number of ordinary shares used to calculate basic and diluted earnings per share (million)		**172.2**	**175.9**

Consolidated Statement of Comprehensive Income
for the period January 1 – December 31, 2023

(EUR thousand)	Section	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Profit for the period		**392,762**	**401,428**
Items, that will not be reclassified to profit or loss in the future			
Actuarial gains/losses on pension and other post-employment benefit obligations	7.3.1	-29,760	152,989
thereof changes in actuarial gains and losses		-43,550	219,174
thereof tax effect		13,790	-66,185
Result from fair value measurement of financial instruments		-1,642	-2,477
thereof changes in unrealized gains and losses		-1,642	-2,477
thereof tax effect		–	–
Items, that were reclassified to profit or loss or will be reclassified subsequently			
Exchange differences on translating foreign operations		-41,499	15,928
thereof changes in unrealized gains and losses		-41,499	15,524
thereof realized gains and losses		–	404
Result from fair value measurement of financial instruments		-1,404	581
thereof changes in unrealized gains and losses		-2,018	801
thereof tax effect		614	-220
Reclassification in profit or loss from fair value measurement of financial instruments		1,404	-581
thereof net result from impairment and reversal of impairment on financial assets		2,018	-801
thereof tax effect		-614	220
Result of cash flow hedges	3.4	-102	1,175
thereof changes in unrealized gains and losses	3.4	3	-373
thereof realized gains and losses	3.4	-150	2,051
thereof tax effect	3.4	45	-503
Other comprehensive income		**-73,003**	**167,615**
Total comprehensive income		**319,759**	**569,043**
thereof attributable to GEA Group AG shareholders		319,762	569,045
thereof attributable to non-controlling interests		-3	-2

Consolidated Statement of Cash Flows
for the period January 1 – December 31, 2023

(EUR thousand)	Section	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Profit for the period		392,762	401,428
plus income taxes		94,012	71,673
minus profit or loss after tax from discontinued operations		11,834	-26,386
Profit before tax from continuing operations		498,608	446,715
Net interest income		21,096	14,262
Earnings before interest and tax (EBIT)		**519,704**	**460,977**
Depreciation, amortization, impairment losses, and reversal of impairment losses on non-current assets		194,067	193,065
Other non-cash income and expenses		-1,440	18,161
Employee benefit obligations from defined benefit pension plans		-42,795	-41,157
Change in provisions and other employee benefit obligations		29,389	35,153
Losses and disposal of non-current assets		-1,463	-2,650
Change in inventories including unbilled construction contracts*		26,031	-96,611
Change in trade receivables		-70,855	-47,975
Change in trade payables		33,505	64,530
Change in other operating assets and liabilities		-22,427	-4,455
Tax payments		-126,214	-107,425
Cash flow from operating activities of continued operations		**537,502**	**471,613**
Cash flow from operating activities of discontinued operations		-3,934	-2,279
Cash flow from operating activities		**533,568**	**469,334**
Proceeds from disposal of non-current assets		9,589	9,400
Payments to acquire property, plant and equipment, and intangible assets		-228,362	-203,802
Payments from non-current financial assets		-10,094	-12,439
Interest income		11,465	4,377
Dividend income		1,623	4,425
Payments from company acquisitions		-6,547	–
Proceeds from sale of subsidiaries and other businesses		21,690	22,262
Cash flow from investing activities of continued operations		**-200,636**	**-175,777**

(EUR thousand)	Section	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Cash flow from investing activities of discontinued operations		–	-6
Cash flow from investing activities		**-200,636**	**-175,783**
Dividend payments		-163,715	-159,590
Payments for acquisition of treasury shares		-52,740	-205,578
Payments from lease liabilities	11.1	-64,033	-63,682
Repayments of borrower's note loans	11.1	-100,000	-50,000
Repayments of finance loans	11.1	-4,344	-5,393
Interest payments		-12,972	-13,251
Cash flow from financing activities of continued operations		**-397,804**	**-497,494**
Cash flow from financing activities of discontinued operations		–	-56
Cash flow from financing activities		**-397,804**	**-497,550**
Effect of exchange rate changes on cash and cash equivalents		-29,969	-5,570
Change in cash and cash equivalents		-94,841	-209,569
Cash and cash equivalents at beginning of period		**718,727**	**928,296**
Cash and cash equivalents total	6.8	**623,886**	**718,727**
thereof restricted cash and cash equivalents	6.8	12,048	16,383
Cash and cash equivalents reported in the balance sheet		**623,886**	**718,727**

*) Including advanced payments received.

Consolidated Statement of Changes in Equity
as of December 31, 2023

				Accumulated other comprehensive income					
(EUR thousand)	Issued capital	Capital reserves	Retained earnings	Translation of foreign operations	Result from fair value measurement of financial instruments	Result of cash flow hedges	**Equity attributable to shareholders of GEA Group AG**	Non-controlling interests	**Total**
Balance at 01/01/2022 (178,195,139 shares)	**513,753**	**1,217,861**	**282,089**	**63,185**	**–**	**-1,094**	**2,075,794**	**417**	**2,076,211**
Profit for the period	–	–	401,430	–	–	–	**401,430**	-2	**401,428**
Other comprehensive income	–	–	152,989	15,928	-2,477	1,175	**167,615**	–	**167,615**
Total comprehensive income	–	–	554,419	15,928	-2,477	1,175	**569,045**	-2	**569,043**
Purchase of treasury shares	-16,808	–	-190,457	–	–	–	**-207,265**	–	**-207,265**
Dividend payment by GEA Group Aktiengesellschaft	–	–	-159,590	–	–	–	**-159,590**	–	**-159,590**
Adjustment Hyperinflation*	–	–	740	612	–	–	**1,352**	–	**1,352**
Changes in combined Group	–	–	1,193	–	–	–	**1,193**	–	**1,193**
Change in other non-controlling interests	–	–	–	–	–	–	**–**	–	**–**
Balance at 12/31/2022 (172,365,312 shares)	**496,945**	**1,217,861**	**488,394**	**79,725**	**-2,477**	**81**	**2,280,529**	**415**	**2,280,944**
Profit for the period	–	–	392,765	–	–	–	**392,765**	-3	**392,762**
Other comprehensive income	–	–	-29,760	-41,499	-1,642	-102	**-73,003**	–	**-73,003**
Total comprehensive income	–	–	363,005	-41,499	-1,642	-102	**319,762**	-3	**319,759**
Purchase of treasury shares	19,047	–	-70,101	–	–	–	**-51,054**	–	**-51,054**
Dividend payment by GEA Group Aktiengesellschaft	–	–	-163,715	–	–	–	**-163,715**	–	**-163,715**
Adjustment Hyperinflation*	–	–	6,364	883	–	–	**7,247**	–	**7,247**
Changes in combined Group	–	–	4,540	–	–	–	**4,540**	–	**4,540**
Change in other non-controlling interests	–	–	–	–	–	–	**–**	–	**–**
Balance at 12/31/2023 (170,879,493 shares)	**515,992**	**1,217,861**	**628,487**	**39,109**	**-4,119**	**-21**	**2,397,309**	**412**	**2,397,721**

*) Effect of accounting for Hyperinflation in Argentina.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Reporting principles

1.1 Basis of presentation

The accompanying consolidated financial statements include GEA Group Aktiengesellschaft, Peter-Müller-Strasse 12, 40468 Düsseldorf/Germany (entry HRB 65691 in the commercial register of the Local Court of Düsseldorf) and its subsidiaries, which together make up the GEA Group ("GEA"). GEA Group Aktiengesellschaft is a listed corporation. The consolidated financial statements were prepared in accordance with International Financial Reporting Standards (IFRS) and related interpretations issued by the International Accounting Standards Board (IASB), as adopted by the EU in compliance with Regulation (EC) No. 1606/2002 of the European Parliament and of the Council on the application of international accounting standards. The disclosures pertaining to section 315e of the Handelsgesetzbuch (HGB – German Commercial Code) are contained in the Notes to the Consolidated Financial Statements.

All financial statements relate to the 2023 fiscal year (January 1 to December 31, 2023). The accompanying consolidated financial statements have been prepared in euro (EUR). Unless otherwise stated, all amounts, including the prior-year figures, are presented in thousands of euro (EUR thousand). All amounts have been rounded to the nearest whole number using standard rounding rules. Adding together individual amounts may therefore result in differences in the order of EUR 1 thousand in certain cases.

To improve the clarity of presentation, various items in the consolidated balance sheet and income statement have been aggregated and are explained accordingly in the notes. Assets and liabilities are classified as current and non-current items. The income statement is prepared using the cost of sales method.

The statement of cash flows is prepared using the indirect method for cash flow from operating activities and the direct method for cash flow from investing and financing activities.

The Executive Board of GEA Group Aktiengesellschaft prepared these consolidated financial statements and released them for publication on March 5, 2024.

1.2 First-time adoption of financial reporting standards

The financial reporting standards presented below were applied by GEA for the first time in the year under review:

Standard/Interpretation		Applicable to fiscal years beginning on or after
IAS 1	Amendments to IAS 1 "Presentation of Financial Statements" - Disclosure of Accounting Policies (issued by the IASB in February 2021)	January 1, 2023
IAS 8	Amendments to IAS 8 „Accounting policies, changes in accounting estimates and errors" - Definition of Accounting Estimates (issued by the IASB in February 2021)	January 1, 2023
IAS 12	Amendments to IAS 12 „Income Tax" - Deferred Tax related to Assets and Liabilities arising from a Single Transaction (issued by the IASB in May 2021)	January 1, 2023
IFRS 17	IFRS 17 „Insurance Contracts" incl. amendments to IFRS 17 (issued by the IASB in May 2017, June 2020 and December 2021)	January 1, 2023
IAS 12	Amendments to IAS 12 „Income Tax" - International Tax Reform - Pillar Two Model Rules (issued by the IASB in May 2023)	January 1, 2023

The initial application of these reporting standards had no significant impact on the consolidated financial statements.

1.3 Financial reporting standards not yet applied

The financial accounting standards and interpretations as well as amendments to existing standards and interpretations presented below have been issued but are not yet mandatory with regards to their application to the preparation of the IFRS consolidated financial statements as of December 31, 2023.

Unless otherwise stated, the new standards and interpretations have been adopted into EU law. GEA will not be applying the new standards and interpretations prematurely.

Standard/Interpretation		Applicable to fiscal years beginning on or after
IFRS 10 and IAS 28	Amendments to IFRS 10 and IAS 28 - Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (issued by the IASB in September 2014)	Initial application date postponed indefinitely by IASB
IFRS 16	Amendments to IFRS 16 „Leases" – Lease Liability in a Sale and Leaseback (issued by the IASB in September 2022)	January 1, 2024
IAS 1	Amendments to IAS 1 "Presentation of Financial Statements" - Classification of Liabilities as Current or Non-Current (issued by the IASB in January 2020, July 2020, updated in October 2022)	January 1, 2024
IAS 7 und IFRS 7	Amendments to IAS 7 „Statement of Cash Flows" and IFRS 7 „Financial Instruments" – Disclosures of Supplier Finance Arrangements (issued by the IASB in May 2023)	January 1, 2024 (subject to endorsement by the EU)
IAS 21	Amendments to IAS 21 „The Effects of Changes in Foreign Exchange Rates" – Lack of Exchangeability (issued by the IASB in August 2023)	January 1, 2025 (subject to endorsement by the EU)

GEA is currently examining the impact of the revised accounting standards on the consolidated financial statements. GEA does not currently expect any significant impact from their initial application.

2. Accounting policies, and estimates and management judgment

Basis for consolidation

GEA's consolidated financial statements include all significant companies in which GEA Group Aktiengesellschaft directly or indirectly holds the majority of voting rights or otherwise directly or indirectly controls, for example based on contractual arrangements. Control exists when GEA is exposed, or has rights, to variable returns from involvement with the investee on the one hand and has the ability to affect those returns through its power over the investee on the other. Despite the ongoing Russia-Ukraine war, GEA does not currently envisage any significant, lasting restrictions on the exercise of its rights in relation to the assets or management of its Russian subsidiaries.

Acquired subsidiaries are accounted for using the acquisition method. The consideration and contingent consideration transferred on acquisition as well as the identifiable net assets acquired are generally measured at fair value. Subsequent changes in fair value are recognized in profit or loss. This does not apply to adjustments to provisional figures made during the measurement period.

The difference between the consideration transferred and the interest acquired in the net assets measured at fair value is recognized as goodwill.

The consolidated group changed as follows in fiscal year 2023:

Number of companies	2023	2022
Consolidated group as of January 1	**178**	**182**
German companies (including GEA Group AG)	27	27
Foreign companies	151	155
Initial consolidation*	2	–
Merger	-5	-2
Liquidation	-1	–
Sale	–	-2
Consolidated group as of December 31	**174**	**178**
German companies (including GEA Group AG)	24	27
Foreign companies	150	151

*) Refers to the initial consolidation of Centrifuges Unlimited Inc. and GEA Liquid Technologies A/S in 2023

A total of 43 subsidiaries (previous year: 45) were not consolidated since their effect on the group's net assets, financial position, and results of operations is not material, even when viewed in the aggregate. Their consolidated revenue amounts to 0.1 percent (previous year: 0.2 percent) of the group's aggregate consolidated revenue, while their earnings account for 0.6 percent (previous year: 0.2 percent) of recognized earnings before tax of the complete group, and their equity accounts for 0.7 percent (previous year: 0.7 percent) of consolidated equity. The subsidiaries are measured at cost and recognized as other non-current financial assets.

A complete list of all subsidiaries, associates and joint ventures can be found in section 13.4 of the Notes to the Consolidated Financial Statements.

Investments in associates and joint ventures

Associates are entities over which a group company can exercise significant influence, namely by participating in the investee's financial and operating policy decisions. This generally relates to companies in which GEA directly or indirectly holds 20 to 50 percent of the voting rights.

Joint ventures are joint arrangements whereby the parties involved have joint control over the arrangement and rights to its net assets. Joint control exists when decisions about the relevant activities of the joint arrangement require the unanimous consent of GEA and the other parties that collectively control the arrangement.

Associates and joint ventures are accounted for using the equity method at the group's share of adjusted equity. They are initially recognized at cost. Any goodwill arising on acquisition is included in the carrying amount of the investment.

GEA's share in the earnings of equity-accounted investments in associates and joint ventures is recognized in the income statement within other financial income and other financial expenses. The share of changes not recognized in profit or loss is recognized in other comprehensive income.

Interests in associates and joint ventures are reported in the balance sheet under other non-current financial assets.

As of the reporting date, no investments in associates (previous year: one) and four investments in joint ventures (previous year: four) were accounted for using the equity method.

Acquisitions

Goodwill may have to be reported in the balance sheet as a result of acquisitions. When an acquired company is initially consolidated, all its identifiable assets, liabilities and contingent liabilities are recognized at their acquisition-date fair value. As a rule, land and buildings are measured on the basis of independent appraisals. If intangible assets are identified, their fair values are calculated using an appropriate measurement method. These measurements are made on the basis of assumptions by management with respect to the future value of the relevant assets and the discount rate. Obligations for contingent considerations are recognized on the basis of the current forecast.

Currency translation

The group companies prepare their IFRS reporting packages on the basis of their respective functional currencies.

Foreign currency transactions entered into by companies included in the consolidated financial statements are translated into the functional currency at the exchange rate prevailing at the transaction date. Monetary assets and liabilities are translated at the applicable exchange rate at each reporting date. The exchange rate gains and losses resulting from these items are generally reported in the income statement under other income or expenses.

All financial statements of companies whose functional currencies differ from the reporting currency are translated into the reporting currency used in GEA's consolidated financial statements. The assets and liabilities of the companies included in the consolidated financial statements are translated at the middle rates prevailing at the reporting date. The income statements of these companies are translated at the average rates for the reporting period. If these average rates are not a reasonable approximation of the actual transaction rates, the income statements are translated at the relevant transaction rates. In the case of countries with high levels of inflation, currencies are always translated at the closing rate. Any translation differences are recognized in other comprehensive income and carried forward in equity.

Property, plant and equipment

Items of property, plant and equipment are carried at cost less cumulative depreciation and impairment losses, plus reversals of impairment losses.

Items of property, plant and equipment are depreciated on a straight-line basis using the relevant residual values and the following useful lives:

	Useful life in years
Buildings and parts of buildings	2 to 60
Technical equipment and machinery, other equipment	2 to 25
Operating and office equipment	2 to 25

Expenses for major regular maintenance are amortized over the remaining useful life of the asset concerned or over the period to the next maintenance date.

Please refer to the section “Impairment losses on property, plant and equipment, and intangible assets” for information on the impairment of property, plant and equipment.

Leases

GEA assesses at contract inception whether a contract is, or contains, a lease.

As lessee, GEA recognizes the cost of the right-of-use asset in the amount of the present value of the future lease payments plus directly attributable costs at the commencement date. The right-of-use asset is depreciated over the lease term (scheduled depreciation) and adjusted, where necessary, for impairment losses and any re-measurement of lease liabilities. If ownership passes to GEA at the end of the lease term, e.g., because the company has exercised a purchase option, the underlying asset is subject to scheduled depreciation over its useful life.

At the commencement date, a liability equal to the present value of future lease payments is recognized for each lease agreement. Rather than separating lease from non-lease components, GEA accounts for each lease component and all its associated non-lease components as a single lease component.

Essentially, as the lessee, GEA uses the incremental borrowing rate for discounting future lease payments, since the rate implicit in the lease cannot easily be determined. During the term of the lease, the lease liability is measured using the effective interest method.

GEA has concluded several lease agreements, mainly in the real estate area, that include renewal and termination options. Some of its vehicle lease arrangements feature purchase options. Contractual terms of this kind offer GEA a maximum of operational flexibility. In assessing whether GEA is reasonably certain to exercise such options, GEA takes all facts and circumstances into consideration that are relevant in financial terms. The measurement of the lease liability takes into account all options whose exercise is deemed to be reasonably certain.

The lease liabilities are remeasured if there is a change in the assessment of purchase, renewal or termination options, or if adjustments to lease payments are made.

GEA applies the relevant recognition exemption to leased assets of low value and to short-term leases (agreements of 12 months and less), which means that lease expenses will be recognized for such arrangements.

GEA has decided not to voluntarily apply IFRS 16 to its intangible assets.

The group discloses right-of-use assets within property, plant, and equipment in the same balance sheet item as the underlying assets, in the same way as if they were owned by GEA. GEA is disclosing lease liabilities as part of its financial liabilities.

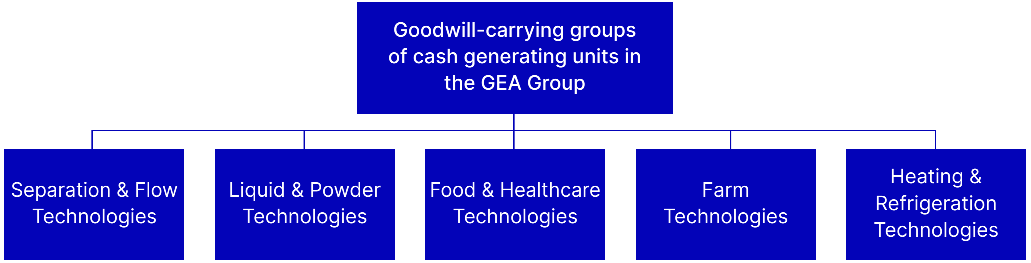
Material lease agreements are found primarily in the areas of real estate, vehicles and IT. The average residual term of IT equipment lease agreements is around one year, while for vehicles and real estate, it is around two years.

Where GEA is the lessor, leases are classified either as finance or operating leases. Leases which essentially transfer all risks and rewards associated with ownership of the asset are classified as finance leases. A receivable is reported in the amount of the net investment under the lease. The interest income subsequently generated is recognized in profit or loss. All other lease transactions in which the group is the lessor are treated as operating leases. In this case, the asset leased for use remains on the balance sheet and is amortized. The lease payments are recognized as income using the straight-line method over the term of the lease.

Please refer to the section “Impairment losses on property, plant and equipment, and intangible assets” for information on the impairment of right-of-use assets.

Goodwill

Goodwill arising from business combinations is recognized as an intangible asset.



Please refer to the section “Impairment losses on property, plant and equipment, and intangible assets” for information on the impairment of goodwill.

Other intangible assets

Other intangible assets include both internally generated and purchased assets. Internally generated intangible assets comprise capitalized development costs and internally developed software. In addition to contract-based rights, purchased intangible assets mainly contain technologies, brand names and customer relationships. Technologies, brand names and customer relationships are usually acquired in connection with takeovers. Internally generated and purchased intangible assets are recognized at cost.

Intangible assets with finite useful lives are amortized on a straight-line basis using the following useful lives:

	Useful life in years
Market-related intangible assets	2 to 20
Customer-related intangible assets	2 to 20
Contract-based intangible assets	2 to 20
Technology-based intangible assets	2 to 20
Internally generated intangible assets	2 to 20

Indefinite-lived intangible assets are examined each year to determine whether the classification of the asset as indefinite-lived can be retained. Any change to a finite useful life is applied prospectively.

Please refer to the section “Impairment losses on property, plant and equipment, and intangible assets” for information on the impairment of other intangible assets.

Impairment losses on property, plant and equipment, and intangible assets

The carrying amounts of intangible assets, items of property, plant and equipment, and groups of cash-generating units with goodwill are reviewed if they are likely to have been impaired by certain events or changes in circumstances. In addition, indefinite-lived intangible assets and cash-generating units with goodwill are tested for impairment at least once a year.

The impairment test compares the asset’s carrying amount against its recoverable amount (“impairment test”). The recoverable amount is defined as the higher of internal value in use and fair value less costs of disposal (net realizable value). An estimate of fair value less cost to sell is only required if the value in use is less than the carrying amount. If the carrying amount exceeds the recoverable amount, an impairment loss in the amount of the difference is recognized. In this case, the impairment loss is first deducted from the goodwill of the cash-generating unit with goodwill. Any amount exceeding goodwill is allocated proportionately to the carrying amounts of non-current non-financial assets. Fair value less cost to sell is generally the benchmark for measuring the impairment of business units classified as “held for sale“.

Previously recognized impairment losses are reversed if the reasons for the impairment no longer apply, except in the case of goodwill. Impairment losses are reversed up to a maximum of the amortized historical cost.

Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

At GEA, financial assets include trade receivables, cash and cash equivalents and other financial assets.

Financial assets are recognized as soon as GEA receives a cash payment or is entitled to receive cash flows. In the case of regular purchases of non-derivative financial assets, the settlement date, i.e. the delivery date of the financial assets, is decisive. Assets are derecognized as soon as the right to receive cash flows or other financial assets expires as a result of payment, waiver, statutory limitation, offsetting, or any other factor, or the right is transferred to another person, with the risks passing in full to the purchaser. In the case of regular sales of non-derivative financial assets, the settlement date is taken to be the date of derecognition, in line with the principle used for recognition.

Depending on the company’s business model for managing these financial assets and on the assets’ contractual cash flow characteristics, financial assets are recognized either at amortized cost or at fair value using the effective interest method. In the case of financial assets not measured at fair value, directly attributable transaction costs are capitalized on initial recognition.

Any fluctuation in value during fair-value measurement are recognized either through profit or loss or through other comprehensive income. Financial assets measured at amortized cost are measured by applying the effective interest method in subsequent periods and are tested for impairments. Gains and losses are recognized in profit or loss if the asset is derecognized, modified or impaired.

Individual financial assets are tested for indications of impairment at each reporting date. The assessment of impairment risks is subject to uncertainty and is partly influenced by management judgement. An impairment loss is recognized in the amount of the expected lifetime credit defaults. Additional information concerning credit risks related to trade receivables may be found in section 3.1 of the Notes to the Consolidated Financial Statements.

At GEA, financial liabilities include trade payables and other financial liabilities.

Initial recognition of these financial instruments is at fair value, less transaction costs incurred. With the exception of derivative financial instruments, they are subsequently measured at amortized cost using the effective interest method.

Trade receivables
Trade receivables do not include interest components and are recognized in the balance sheet at their principal amount less appropriate impairments.

Trade receivables that are sold to financial services companies under factoring agreements are derecognized once substantially all the risks and rewards have been transferred to the financial services company. Trade receivables that are not derecognized in this context are classified as "measured at fair value through other comprehensive income" (FVOCI).

Cash and cash equivalents
Cash and cash equivalents comprise cash, demand deposits and highly liquid financial assets that are readily convertible to known amounts of cash at any time and are subject to only insignificant risks of changes in value.

Other financial assets
Other financial assets include other equity investments, other securities, financial receivables (except trade receivables), and derivative financial instruments.

Other equity investments not held for sale are allocated to the "at fair value through other comprehensive income" (FVOCI) measurement category. In some cases, the acquisition costs can be an appropriate estimate of the fair value. This can be the case if there is not enough current information available to measure fair value, or if there is a wide range of potential measurements for the fair value and the acquisition costs correspond to the best estimate of the fair value within that range.

In the case of debt instruments measured at fair value through other comprehensive income, any interest income, re-measurements of currency translation gains/losses, and impairment losses/reversals of impairment losses are carried in the income statement and measured in the same way as financial assets measured at amortized cost. The remaining changes in fair value are recognized in other comprehensive income. When the asset is derecognized, the accumulated gain or loss resulting from changes in fair value is reclassified to the income statement.

Derivative financial instruments are used exclusively for hedging purposes, in particular to hedge currency risk. They are always carried at fair value. If derivative financial instruments are not included in a designated hedging relationship, they are allocated to the "Measured at fair value through profit or loss" (FVTPL) category, and their fair value changes are recognized through profit or loss.

Trade payables
Trade payables also include liabilities for goods received or services rendered that have been invoiced by or formally agreed with the supplier. There is a low uncertainty regarding the amount of the obligation of services not yet invoiced. Trade payables are recognized at fair value. This corresponds to the settlement amount in the case of liabilities due within one year.

GEA participates in a Supply Chain Finance (SCF) program. Under this program, GEA's suppliers can sell their receivables to a bank to receive earlier payment. The participating bank agrees to pay invoiced amounts owed by GEA to the participating suppliers and to receive payment from GEA at a later date. The aim of this program is to facilitate the efficient processing of payments.

This agreement does not result in any material changes to the liabilities that are subject to it, nor does it provide for a legal exemption. As a result of this program, these liabilities are not derecognized.

From GEA's perspective, the agreement does not significantly extend invoice payment terms beyond those that are customary in the market. GEA does not incur any additional interest charges on the payment of trade payables to the bank. Amounts related to suppliers that are subject to factoring are therefore reported under trade payables, as the nature and purpose of such liabilities corresponds to other trade payables and thus form part of the working capital used in GEA's normal business cycle.

Other financial liabilities

Other financial liabilities include borrower's note loans, liabilities to banks, lease liabilities, and miscellaneous other financial liabilities. Other financial liabilities also include derivative financial instruments. The recognition and measurement methods presented under other financial assets also apply in this case.

Other assets

Other assets are generally recognized at their nominal value. Other non-current assets also include the net assets resulting from defined benefit pension plans.

Taxes

Deferred taxes are recognized for temporary differences between the carrying amounts in the respective national tax accounts and those in the IFRS financial statements that are included in the consolidated financial statements, as well as on consolidation transactions and tax loss carryforwards.

When assessing the recoverability of deferred tax assets, management judges the extent to which realization of the deferred tax assets is sufficiently likely. The question of whether the deferred tax assets can actually be realized depends on whether sufficient future taxable income can be generated against which the temporary differences or tax loss carry-forwards can be offset. Management therefore analyzes the timing of the reversal of deferred tax liabilities and expected future taxable income. Management expects that deferred tax assets can be realized on the basis of expected future taxable income. Deferred tax assets decline if the estimate of expected taxable income decreases, if tax benefits available as a result of tax strategies are reduced, or if the amount or timing of future tax benefits is restricted by changes in the law (further details can be found in section 8.7 of the Notes to the Consolidated Financial Statements).

Deferred tax assets and liabilities are offset if there is a legally enforceable right to set off current tax assets against current tax liabilities and if the deferred taxes relate to income taxes levied by the same taxation authority.

Deferred tax liabilities are not recognized on taxable temporary differences arising from investments in subsidiaries, associates, or joint ventures as long as the Company is able to control the timing of the reversal of temporary differences, and reversal is unlikely in the foreseeable future.

If there is uncertainty regarding the income tax treatment of current and deferred tax assets or liabilities, the assessment should be based on the assumption that tax authorities will audit all amounts within their authority and that they possess all the relevant information required to audit such amount. In cases where it is considered unlikely that the tax authority will accept an uncertain tax treatment, either the most likely amount or the expected amount is to be applied to each instance of uncertain tax treatment, depending on which method is more appropriate for predicting the resolution of the uncertainty concerned.

Companies within the group are subject to tax in a large number of different jurisdictions. The interpretation of tax regulations in particular may be subject to uncertainty when assessing worldwide income tax assets and liabilities. Differing points of view taken by the respective tax authorities with regard to the correct interpretation of tax laws and regulations cannot be ruled out. Changes in assumptions about the correct interpretation of tax laws and regulations, such as those resulting from changes in interpretations by the courts, are reflected in the recognition of uncertain income tax assets and liabilities within the relevant fiscal year.

Inventories

Inventories are recognized at the lower of cost and net realizable value. Acquisition costs are calculated at average cost or using the first-in, first-out (FIFO) method.

Costs of obtaining customer-specific project contracts (which are to be capitalized under IFRS 15) are carried in inventories and subject to scheduled amortization over the contract term. In cases where the amortization period would amount to one year or less, the incremental costs of obtaining a contract are expensed immediately.

Assets held for sale, liabilities held for sale, and discontinued operations

A non-current asset or a disposal group is classified as “held for sale” when its carrying amount will be recovered principally through a sale transaction rather than through continued use. These are reported separately in the balance sheet as “assets held for sale” or “liabilities held for sale.” On initial classification as “held for sale,” non-current assets or assets and liabilities of disposal groups are first measured in accordance with the applicable IFRS. They are then measured at the lower of their carrying amount and fair value less cost to sell. Disposal groups are measured in aggregate. These assets cease to be depreciated when they are classified as “held for sale”.

If a disposal group represents a separate major line of business or geographical area of operation, it qualifies as a discontinued operation whose income and cash flows are reported separately in the income statement and statement of cash flows respectively. Prior-year figures are adjusted accordingly. Revenue and expenditures from intra-group transactions are taken into account when presenting results from discontinued operations if they continue to be incurred after the disposal of a discontinued operation.

As a general principle, the disclosures in the notes to the consolidated financial statements relate to the assets or liabilities recognized in the corresponding line items and to continuing operations. Where disclosures relate to GEA including assets held for sale, as well as the associated liabilities, and discontinued operations, this is indicated either by a statement that the disclosures refer to the complete group, or by another comment.

Subscribed capital

Ordinary shares are classified as equity. In fiscal years when treasury shares are held, these are deducted from the equity attributable to the shareholders of GEA Group Aktiengesellschaft, and issued capital is reported in lieu of subscribed capital.

Obligations under pension plans

Obligations under pension plans relate to post-employment benefit obligations. Defined benefit obligations are calculated using the projected unit credit method. The present value of these obligations reflects expected future wage, salary and pension trends, since the entitlements achievable in the period up to the retirement age depend on these. The present value of the pension obligations is also based on further actuarial assumptions, namely the discount rate and mortality rates. Claims under supplementary healthcare benefit insurances are included in the actuarial measurement of assumptions made in respect of healthcare cost trends. The actuarial assumptions could differ significantly from actual future outcomes as a result of changes in market and economic conditions and could therefore have a material effect on the level of the obligation and the related expenses. The pension obligations are measured on the basis of actuarial reports by independent actuaries.

In order to provide these pension benefits, the company in some cases holds financial assets in long-term funds outside GEA or has taken out qualifying insurance policies. To the extent that entitlements are funded by such external assets (plan assets), their fair value is offset against the present value of the defined benefit obligation. The resulting balance is reported under non-current employee benefit obligations or other non-current assets (net carrying amount). The discount rate used to measure the net carrying amount is calculated at the end of each year. This is the rate used to calculate the present value of future cash outflows expected to be required to settle the obligation. In order to calculate the discount rate, the group uses the interest rate on high-quality corporate bonds denominated in the same currency in which the benefits are paid and whose terms to maturity correspond to those of the pension obligations.

Other significant assumptions relating to pension obligations are partly based on market conditions (further details can be found in section 7.3.1 of the Notes to the Consolidated Financial Statements).

Actuarial gains and losses from the re-measurement of the net carrying amount are recognized in other comprehensive income in the year in which they arise and reported in retained earnings after adjustment for tax effects. This also applies to the recognition of the difference between the actual returns on plan assets and the returns calculated using the discount factor. Costs from unwinding the discount on the net carrying amount are recognized in interest expenses; income is recognized in interest income. Current and past service cost for the period, as well as gains and losses from settlements, are recognized in the relevant function costs.

Other employee benefit obligations

Other employee benefit obligations comprise other long-term benefits and all short-term benefits. Short-term employee benefit obligations are expected to be settled in full no more than 12 months after completion of the service rendered. They include wages, salaries, social insurance contributions, paid vacation, and profit-sharing arrangements. They are recognized as an expense at the same time as the remunerated work or service is discharged. Any expense in excess of the payments already made is reported as a deferred liability at the reporting date. Other long-term employee benefits, such as jubilee payments or partial retirement arrangements, are recognized at the actuarial present value of the obligation at the reporting date. Securities are pledged to the beneficiaries to protect vested partial retirement credits against the employer's insolvency. The fair value of these securities is offset against the corresponding liability.

Also reported under other employee benefit obligations are liabilities in respect of severance payments and social plans resulting from, among other things, obligations in connection with restructuring provisions.

Restructuring provisions

Restructuring provisions are recognized as soon as the company has a constructive obligation to carry out restructuring measures, having given notice of the restructuring plan to the parties affected. In assessing whether the criteria for recognition have been met, management makes certain assumptions as to whether the announcement has given rise to valid expectations among the parties affected that the company will carry out the restructuring, and whether major changes to the restructuring plan are anticipated.

In order to determine the amount of the restructuring provisions, management, above all, estimates the amount of the expected severance payments. To this end, the management makes assumptions with regard to the wage structure and length of service of the employees affected, as well as to the manner in which the downsizing program is to be implemented. Severance obligations recognized in this context are reported under employee benefit obligations.

Provisions

Provisions for uncertain liabilities are recognized where there is a legal or constructive obligation to a third party, a future outflow of resources is likely, and the expected settlement value can be estimated reliably. The present value of the settlement amount is recognized if the interest rate effect is material. Amounts are discounted at the market rates for the appropriate maturity and currency. Discount unwinding costs are reported in interest expense.

Changes in the estimated probability of a present obligation, the outflow of resources embodying economic benefits, or the interest rate applicable could result in items previously classified as contingent liabilities needing to be reported as provisions or could also lead to a requirement to adjust the amount of provisions (further details can be found in section 7.2 of the Notes to the Consolidated Financial Statements). In the area of environmental protection and mining, in particular, the applicable interest rate has a significant impact on the amount of the provisions. In some cases, the duration of the expected obligations is far longer than the period for which interest rates with corresponding residual terms are available on the market. GEA therefore derives the interest rate to be applied for the appropriate term on the basis of reliable and most recently available historical market data over an extended period under consideration.

When establishing warranty provisions, the warranty expense is recognized at the time when the revenue is recognized and is reported in cost of sales. In all other cases, provisions are recognized when the product is accepted. The provision is measured on the basis of both the warranty expense actually incurred in the past and on the evaluated overall risk inherent in the system or product. Provisions are also recognized if a claim is made under a warranty and a loss is likely. Recourse claims against suppliers are capitalized if their services are subject to a warranty and it is virtually certain that the claim can be enforced.

Provisions for expected losses from onerous contracts are recognized if the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it. The unavoidable costs also include the unavoidable overheads needed to meet the contractual obligations.

In some cases, GEA companies are parties to litigations. The outcome of this litigations could have a material effect on the group's net assets, financial position, and results of operations. Management regularly analyzes current information on these legal disputes and recognizes provisions for probable obligations, including estimated legal costs. Both internal counsel and external lawyers are used for making this assessment. When deciding on the need to recognize provisions, management takes into account the probability of an unfavorable outcome and its ability to estimate the amount of the obligation with sufficient reliability. The filing of a suit or the formal filing of a claim against a GEA company does not necessarily imply that a provision must be recognized for the corresponding risk (further details can be found in section 9.1 of the Notes to the Consolidated Financial Statements).

Other liabilities

Other liabilities that solely consist of non-financial liabilities are recognized at the settlement amount.

Contract assets and liabilities

Contract assets are recognized if the contract costs incurred and the gains recognized exceed the progress billings and advance payments received or due. Advance payments on orders and the gross amount due to customers for contract work are carried under "contract liabilities." Advance payments on orders are stated at their nominal amount. If the advance payments received or due exceed the capitalized costs and recognized gains, less the progress billings at the reporting date, they are reported as a liability under contract liabilities.

Revenue Recognition

GEA reports revenue according to three revenue types, namely construction contracts, components business and services:

- Revenues from construction contracts are recognized over time in accordance with IFRS 15 ("percentage-of-completion method") since the customer obtains control through their specifications over the duration of the contract and because GEA is entitled to reimbursement of the costs incurred so far, plus an appropriate margin, if the customer cancels a contract. The percentage of completion is determined using the cost-to-cost method, which is derived from the ratio of contract costs incurred to the total estimated contract costs at the reporting date. Contract costs include direct costs plus materials and construction overheads, depreciation, production-related administrative costs, and such other costs that are specifically chargeable to the customer under the terms of the contract. Adjustments are made for variations in contract work, claims, and incentive payments insofar as these will probably result in revenue that is capable of being reliably estimated. Changes in estimates or differences between the estimated costs and the actual costs have a direct impact on recognized earnings from construction contracts. In addition, estimation limits must be observed. In line with this method, construction contracts are measured at the amount of the contract costs incurred at the reporting date plus the profit attributable to the proportion of work completed. The costs incurred and the related profits are reported under contract assets, less progress billings and advance payments received or due. If, while a performance obligation is being satisfied, the contract costs incurred are not proportionate to the progress of the performance of said contract, revenues will be recognized only to the extent of the contract costs incurred ("zero-profit method"). A profit is only recognized when the contract costs incurred are matched by corresponding progress of the performance of the contract. Contract costs are recognized as an expense in the period in which they are incurred. If it is foreseeable that total contract costs will exceed contract revenue, the expected loss is recognized as an impending loss according to IAS 37.
- Revenue from the sale of components ("component business") is recognized when such components are transferred to the customer and the contractual performance obligations are therefore met. Performance obligations are satisfied as the customer obtains control over the goods sold to them, i.e. when they can direct the use of and obtain essentially all of the remaining benefits from the goods.
- Revenue from services is recognized over the period in which the service is performed. If only the sale of spare parts is involved, revenue is recognized at a specific point in time.

Revenue is measured at the fair value of the consideration received or to be received. Customer bonuses, discounts or rebates reduce the amount of revenue recognized. Payments for differences in the overall contract, claims, and premiums are included in the contract revenue as variable components. The amount of such payments is calculated at contract inception using the "expected-value" method – if there are several different possible amounts – or the "most likely amount" method – if there are just two possible amounts. The effects of significant financing components can be ignored when determining the amount of revenue to be recognized if the vendor expects, at contract inception, that the period between the transfer of a promised good or service to the customer and the date of payment will be one year or less. Discretion must be applied when judging whether or not revenues are to be recognized "over time", as well as with regard to the allocation of the transaction price to the performance obligation. Where stand-alone selling prices are not directly observable, these are estimated.

Share-based payment

GEA provides share-based payment programs for the Executive Board and selected managers in the form of cash-settled plans, which are recognized as an expense over the vesting period. Entitlements under these plans are recognized at fair value at the reporting date. Changes in the fair value of the provision for share-based payment programs are recognized as an interest expense or interest income (further details can be found in section 7.3.3 of the Notes to the Consolidated Financial Statements).

Research and development

Research expenditures are recognized immediately as an expense. Development expenses intended to significantly enhance a product or process are capitalized, provided that the recognition criteria of IAS 38 are met. All other development expenditures are recognized immediately as expenses. Capitalized development expenditures for completed projects are reported at cost less cumulative amortization and impairment losses. Capitalized development costs for intangible assets not yet available for use are tested for impairment once a year.

Development costs that are required under construction contracts are capitalized as part of the cost of the asset.

Government grants

Government grants are recognized at fair value, provided the group meets the conditions necessary to receive the grant. Government grants covering expenses, such as short-time allowances or similar measures, are recognized over the period in which such costs are incurred. Government grants for capital expenditure are deducted from the acquisition cost of the respective asset.

Management judgment and estimates

Preparation of the consolidated financial statements requires management to make judgments and estimates to a limited extent. These relate to the application of accounting policies and reported amounts of assets and liabilities as well as of income and expenses. The estimates are based on all currently available information. Actual results may differ from these estimates.

Estimates and their underlying assumptions are continuously reviewed. Adjustments of estimates are recognized prospectively.

Management judgment

The following table shows material management judgment.

	Significant estimates and judgments
Goodwill and other intangible assets	• Valuation based on management assumptions using the discounted cash flow method
Employee benefit obligations/ Restructuring provisions	• Management's assessment of whether there is a valid expectation that the restructuring will be implemented and whether there are significant changes to the restructuring plan
Revenue recognition	• Recognition of revenues from construction contracts over time or at a point in time

Estimates

Material estimates are described in the following table.

	Material estimates
Goodwill and other intangible assets*	• Determination of the discount rate using capital market parameters • Estimation of future cash flows
Taxes*	• Management's estimate of the recoverability of deferred tax assets based on expected future taxable income
Employee benefit obligations/ Restructuring provisions	• Estimation of the amount of expected severance payments, considering management's assumptions regarding the salary structure, length of service of the employees affected by the reduction in force and the manner in which the reduction in force will be implemented
Provisions and contingent liabilities*	• In making management's decision on the need for a provision, consideration is given to the probability of an unfavorable outcome and the ability to estimate the amount of the obligation with sufficient reliability • Recognition of items previously classified as contingent liabilities as provisions or changes in provision amounts due to changes in the probability estimate of a present obligation of the economic outflow of resources as well as the applicable interest rate are possible • Derivation of the interest rate to be applied on the basis of reliable and most recently available historical market data over an extended observation period for provisions where the duration of the expected obligation is far in excess of the period for which the interest rate can be read directly on the market with corresponding residual terms • Derivation of the cost increase rate to be applied based on reliable and most recently available market data
Obligations from pension plans*	• Determination of the present value taking into account actuarial assumptions • Determination of the discount rate
Trade receivables*	• Recognition of impairment losses in the amount of the loan losses expected over the entire remaining term to maturity
Revenue recognition	• Determination of the stage of completion from the ratio of contract costs incurred up to the reporting date to the total contract costs estimated at the reporting date („cost-to-cost" method) when revenue is recognized over time • Determination of revenues from variable components based on the expected value method or the most probable amount method

*) Influenced by the current macroeconomic environment that results from inflation, increase of interest rates and geopolitical risks.

3. Risk management and financial instruments

3.1 Financial Risk Management

Basic information concerning financial risk management is provided in the Group Management Report in the section entitled “Opportunities and Risk Report”, subsection “Financial Risks“.

Credit risk

Impairments on financial instruments measured at fair value through other comprehensive income amounted to EUR 5,304 thousand (previous year: EUR 4,183 thousand) as of the reporting date.

The maximum credit risk is limited to the carrying amount of the financial instruments and the contract assets.

Additional information concerning credit risks in general is provided in the Group Management Report in the section entitled “Opportunities and Risk Report”, subsection “Financial Risks“.

Trade receivables and contract assets

GEA applies the “simplified approach” to trade receivables and contract assets, and recognizes lifetime expected credit losses as soon as the assets are recorded. In the context of this simplified approach, GEA calculates expected credit losses according to risk categories while taking into account historic loss rates. Assignment to a specific risk category is based on common credit risk attributes. For GEA, these are the customer’s geographical location and the aging structure of the related asset. In order to take forward-looking information into account, historic loss rates were adjusted using scaling factors. These were based on predictions of the gross domestic product (GDP) of the corresponding regions. As of December 31, 2023, the weighted average scaling factor stands at 1.1, unchanged from December 31, 2022.

Due to the Russia-Ukraine war, GEA has analyzed the effects of considering Russia as a separate risk category on expected credit losses. Considering Russia as a separate risk category did not result in any material effects on expected credit losses and is therefore omitted.

Contract assets relate to ongoing work that has yet to be invoiced. Essentially, they exhibit the same risk characteristics as trade receivables for the same types of contract. GEA has thus concluded that the predicted loss rates for trade receivables that are not overdue constitute a best estimate with which to represent the loss rates pertaining to contract assets.

An individual impairment is made when one or more events have occurred that adversely affect the debtor’s financial standing. These events include delays in payment, the threat of insolvency, and concessions made by the creditor due to payment difficulties.

Trade receivables and contract assets are derecognized immediately when there is reasonable doubt as to their realizability. This is the case, for instance, if the debtor is found to be insolvent.

The table below shows the expected credit losses on trade receivables and contract assets that are not credit-impaired as of December 31, 2023:

(EUR thousand)	Gross carrying amount	Weighted average loss rate	Range of loss rates	Loss allowance
Not overdue	1,009,434	0.58%	0.10% - 5.40%	5,841
of which contract assets	376,280	0.62%	0.10% - 5.40%	2,320
of which trade receivables	633,154	0.56%	0.10% - 5.40%	3,521
Overdue (trade receivables)	**114,852**	4.79%	0.40% - 75.00%	**5,500**
of which overdue less than 181	106,838	3.43%	0.40% - 34.30%	3,665
of which overdue between 181 and 360	5,978	15.82%	4.00% - 55.80%	946
of which overdue between 361 and 720	1,487	32.01%	15.50% - 68.60%	476
of which overdue more than 720	549	75.23%	56.10% - 75.00%	413
Total	**1,124,286**			**11,341**

The table below shows the expected credit losses on trade receivables and contract assets that were not credit-impaired as of December 31, 2022:

(EUR thousand)	Gross carrying amount	Weighted average loss rate	Range of loss rates	Loss allowance
Not overdue	999,337	0.86%	0.10% - 5.10%	8,591
of which contract assets	376,191	0.81%	0.10% - 5.10%	3,029
of which trade receivables	623,146	0.89%	0.10% - 5.10%	5,562
Overdue (trade receivables)	**94,530**	4.70%	0.60% - 75.00%	**4,447**
of which overdue less than 181	88,853	3.03%	0.60% - 23.30%	2,688
of which overdue between 181 and 360	3,217	19.40%	4.90% - 45.50%	624
of which overdue between 361 and 720	1,781	36.72%	11.10% - 75.00%	654
of which overdue more than 720	679	70.80%	47.40% - 75.00%	481
Total	**1,093,867**			**13,038**

The table below reconciles the total impairments on trade receivables and contract assets as of January 1 with the impairments as of December 31:

(EUR thousand)	2023	2022
Impairments as of January 1	**64,572**	**76,993**
Derecognition	-7,327	-9,739
Expenses from remeasurement of impairments (Reversal)	-21,041	-15,114
Income from remeasurement of impairments (Addition)	27,222	11,153
Exchange rate effects	-1,493	1,312
Other changes*	2,889	-33
Impairments as of December 31	**64,822**	**64,572**

*) Relates to reclassification of an in prior years individually impaired receivable.

Impairment losses rose by EUR 250 thousand in fiscal year 2023. The majority of impairment losses were related to credit-impaired trade receivables and contract assets. At EUR 952 thousand, the largest rise in impairment losses was attributable to the DACH (Germany, Austria, and Switzerland) and Eastern Europe region. This was offset by impairment losses going down by EUR 918 thousand in Latin America and EUR 549 thousand in North America. In the remaining regions, impairment losses increased by EUR 765 thousand.

During the 2022 fiscal year, the change in impairments was essentially related to credit-impaired trade receivables and contract assets. At EUR 3,655 thousand, the largest decline in impairments was attributable to the DACH (Germany, Austria, and Switzerland) and Eastern Europe region. Further material declines of EUR 3,200 thousand were attributable to the Asia Pacific region, EUR 2,254 thousand to the North America region and EUR 2,221 thousand to the Western Europe, Middle East and Africa region. In the remaining regions, impairment losses decreased by EUR 1,091 thousand.

In fiscal year 2023, trade receivables with a contractual amount of EUR 507 thousand (previous year: EUR 1,479 thousand) were still subject to enforcement activities.

Any collateral for trade receivables or contract assets had no material effect on the scale of the impairments calculated.

Additional information concerning credit risks related to trade receivables and contract assets is provided in the Group Management Report in the section entitled "Opportunities and Risk Report", subsection "Financial Risks".

Cash and cash equivalents

The estimated impairment on cash and cash equivalents was calculated on the basis of expected credit losses within a 12-month period. External ratings and short remaining maturities lead GEA to believe that the credit risk pertaining to its cash and cash equivalents is low. No material impairments on cash and cash equivalents were identified in fiscal year 2023.

Additional information concerning credit risks associated with cash and cash equivalents is provided in the Group Management Report in the section entitled "Opportunities and Risk Report", subsection "Financial Risks".

Other financial assets

GEA calculates expected credit losses on its other financial assets according to risk categories while taking into account published credit ratings and credit default swaps. Assignment to a specific risk category is based on the geographical location of the counterparty. As soon as the assets are recognized, the estimated impairment is calculated on the basis of expected losses within a 12-month period. GEA assumes that the credit risk has increased significantly if the credit risk deteriorates by two rating levels within a fiscal year. In such case, the expected credit losses over the entire remaining maturity are recorded.

The procedures for effecting individual impairments and derecognizing other financial assets are comparable with those applied to trade receivables and contract assets.

In order to mitigate credit risk exposure, derivative financial instruments are entered into only with financial institutions that maintain a sufficient credit rating.

As of December 31, 2023, impairments on other financial assets totaled EUR 7,587 thousand (previous year: EUR 7,568 thousand).

Liquidity risks

The following tables show the undiscounted contractually agreed interest and principal payments for financial liabilities, including derivative financial instruments with negative fair values:

		Cash flows					
(EUR thousand)	Carrying amount	< 1 year	1-2 years	2-3 years	3-4 years	4-5 years	> 5 years
2023							
Trade payables	**769,036**	769,036	–	–	–	–	–
Borrower's note loan	**101,178**	1,434	101,434	–	–	–	–
Liabilities to banks	**727**	727	–	–	–	–	–
Lease liabilities	**154,788**	63,850	44,074	28,161	17,225	11,611	26,958
Currency derivatives not included in a hedging relationship	**2,438**	342,964	10,027	–	–	–	–
Miscellaneous other financial liabilities	**81,883**	72,688	3,604	150	151	152	7,345
2022							
Trade payables	**791,777**	791,777	–	–	–	–	–
Borrower's note loan	**201,971**	102,413	1,434	101,434	–	–	–
Liabilities to banks	**5,167**	5,496	131	–	–	–	–
Lease liabilities	**165,233**	62,210	44,969	28,584	15,814	8,364	20,710
Currency derivatives not included in a hedging relationship	**11,847**	680,701	4,891	1,862	–	–	–
Miscellaneous other financial liabilities	**92,978**	83,207	4,265	154	160	166	8,010

All financial liabilities outstanding as of December 31, 2023, are included in the table above on the basis of expected contractual cash flows. Projected figures for future new liabilities are not taken into account. Foreign currency amounts are translated at the closing rates. In the case of financial liabilities that can be repaid at any time, it is assumed that they will be repaid within one year.

Payments for derivative financial instruments totaling EUR 352,991 thousand (previous year: EUR 687,454 thousand) were partially offset by payments received from these instruments of EUR 350,906 thousand (previous year: EUR 676,970 thousand).

The following table illustrates cash credit lines and the extent to which they have been utilized.

(EUR thousand)	Maturity	12/31/2023 approved	12/31/2023 utilized	12/31/2022 approved	12/31/2022 utilized
Borrower's note loan (2023)	February 2023	–	–	100,000	100,000
Borrower's note loan (2025)	February 2025	100,000	100,000	100,000	100,000
Bilateral credit lines	until further notice	60,504	504	64,902	4,902
Syndicated credit line („Club Deal")	August 2028	650,000	–	650,000	–
Total		**810,504**	**100,504**	**914,902**	**204,902**

Section 7.4 of the Notes to the Consolidated Financial Statements contains more information on GEA's other financial liabilities.

As of December 31, 2023, guarantee lines for the performance of contracts, advance payments and warranty obligations of EUR 1,088,039 thousand were available to the group as a whole (previous year: EUR 1,111,837 thousand), of which EUR 393,301 thousand have been utilized (previous year: EUR 459,052 thousand). The guarantees are generally payable at first demand. As it is generally the case for this type of order collateral and financing instrument, GEA Group Aktiengesellschaft drew on guarantees only in extremely rare cases in recent years.

As of December 31, 2023, EUR 376 thousand (previous year: EUR 4,748 thousand) of bank and group guarantees under GEA Group Aktiengesellschaft credit lines were granted to customers of GEA Refrigeration Italy S.p.A. and GEA Refrigeration Iberica S.A., which were sold as of October 29, 2021, to collateralize contractual obligations. To hedge against a payment default, a return guarantee of EUR 7,307 thousand (previous year: EUR 7,307 thousand) has been issued by the acquirer in favor of GEA Group Aktiengesellschaft.

Additional information concerning liquidity risks is provided in the Group Management Report in the section entitled "Opportunities and Risk Report", subsection "Financial Risks".

Foreign currency risks and foreign currency sensitivity analysis

The foreign currency risk presented in the sensitivity analysis results from the following transactions:

- From recognized foreign currency transactions:
  The translation of foreign currency receivables or liabilities at the closing rate has a direct effect on profit or loss.
- From currency derivatives:
  If a hedge has been executed for economic reasons and is not included in a documented hedging relationship, the corresponding currency risk exposure will have a direct effect on earnings. If currency derivatives are included in documented hedging relationships in the form of cash flow hedges, exchange rate fluctuations will have a direct effect on equity.

The currency pairs in which the major part of the foreign currency cash flows are settled are included as relevant risk variables in the foreign currency sensitivity analysis. The following table shows the sensitivity of a 10 percent increase or decrease in the euro from the perspective of the group:

(EUR thousand)	2023					
Base currency	Foreign currency	Net risk exposure	Profit/loss for the year		Equity	
			+ 10%	- 10%	+ 10%	- 10%
EUR	USD	-56,097	5,143	-6,286	–	–
EUR	CHF	-25,487	2,313	-2,827	–	–
EUR	GBP	22,806	-2,033	2,485	–	–
EUR	INR	17,011	-1,548	1,892	–	–
EUR	SGD	16,676	-1,729	2,060	–	–
EUR	AED	-15,284	1,389	-1,698	–	–

(EUR thousand)	2022					
Base currency	Foreign currency	Net risk exposure	Profit/loss for the year		Equity	
			+ 10%	- 10%	+ 10%	- 10%
EUR	USD	-114,539	9,906	-12,108	658	-804
EUR	GBP	26,890	-2,397	2,929	–	–
EUR	CAD	14,532	-1,315	1,607	–	–
EUR	CNY	-11,601	995	-1,216	–	–
EUR	ZAR	10,768	-977	1,194	–	–
EUR	CHF	-9,572	876	-1,071	–	–

The net risk relates to all contractually agreed foreign currency cash flows, collated into a single net item, and translated into euros at the closing rate. Net positions with a positive sign represent future cash inflows in foreign currency. Net positions with a negative sign represent future cash outflows.

Additional information concerning currency risks is provided in the Group Management Report in the section entitled “Opportunities and Risk Report”, subsection “Financial Risks”.

Interest rate risks and interest rate sensitivity analysis

The interest rate sensitivity analysis presents the effects of changes in market interest rates on interest income and expenses, and equity. The sensitivity analyses are based on the following assumptions:

- Non-derivative fixed-rate financial instruments are exposed to on-balance-sheet interest rate risks only if they are measured at fair value. GEA measures such financial instruments at amortized cost.
- Non-derivative variable-rate financial instruments whose interest payments are not included as hedged items in a hedging relationship that is recognized as a cash flow hedge are subject to interest rate risks in the income statement.
- Interest rate derivatives included in a hedging relationship that is recognized as a cash flow hedge are subject to equity-related interest rate risks in the amount of the effective portion of the hedging relationship.
- Interest rate derivatives not included in a hedging relationship that is recognized as a cash flow hedge are subject to interest rate risks in the income statement.
- Currency derivatives are not subject to material interest rate risks and therefore have no effect on interest rate sensitivity.

In the reporting year as well as in prior year there were no interest rate risks resulting from the above-mentioned circumstances.

Additional information concerning interest rate risks is provided in the Group Management Report in the section entitled “Opportunities and Risk Report”, subsection “Financial Risks”.

3.2 Financial instruments: Classifications and fair values

The following table shows the carrying amount and fair value of financial assets and financial liabilities as of December 31, 2023, including their level in the fair value hierarchy. In cases where a financial instrument is not measured at fair value and the carrying amount presents a reasonable approximation of its fair value, the latter is not disclosed separately.

	Carrying amount					Fair value			
(EUR thousand)	Total 12/31/2023	Amortized cost	Fair value through profit or loss	Fair value recognized in other comprehensive income	Measurement in accordance with other IFRSs	Total 12/31/2023	Level 1	Level 2	Level 3
Assets									
Trade receivables	**770,888**	**683,198**	**–**	**87,690**	**–**	**87,690**	**–**	**87,690**	**–**
Cash and cash equivalents	**623,886**	**623,886**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Other financial assets	**109,621**	**63,443**	**16,322**	**860**	**28,996**	**21,223**	**–**	**6,278**	**14,945**
of which investments in unconsolidated subsidiaries	22,592	–	–	–	22,592	–	–	–	–
of which at-equity investments	6,404	–	–	–	6,404	–	–	–	–
of which other investments	860	–	–	860	–	860	–	–	860
of which other securities	14,085	4,041	10,044	–	–	14,085	–	–	14,085
of which derivatives included in a hedging relationship	–	–	–	–	–	–	–	–	–
of which derivatives not included in a hedging relationship	6,278	–	6,278	–	–	6,278	–	6,278	–
of which remaining other financial assets	59,402	59,402	–	–	–	–	–	–	–
Liabilities									
Trade payables	**769,036**	**769,036**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Other financial liabilities	**341,014**	**183,788**	**2,438**	**–**	**154,788**	**112,764**	**–**	**112,764**	**–**
of which bonds and other securitized liabilities	101,178	101,178	–	–	–	98,220	–	98,220	–
of which liabilities to banks	727	727	–	–	–	727	–	727	–
of which lease liabilities	154,788	–	–	–	154,788	–	–	–	–
of which derivatives included in a hedging relationship	–	–	–	–	–	–	–	–	–
of which derivatives not included in a hedging relationship	2,438	–	2,438	–	–	2,438	–	2,438	–
of which contingent consideration	–	–	–	–	–	–	–	–	–
of which remaining other financial liabilities	81,883	81,883	–	–	–	11,379	–	11,379	–

	Carrying amount					Fair value			
(EUR thousand)	Total 12/31/2022	Amortized cost	Fair value through profit or loss	Fair value recognized in other comprehensive income	Measurement in accordance with other IFRSs	Total 12/31/2022	Level 1	Level 2	Level 3
Assets									
Trade receivables	**730,945**	**650,031**	**–**	**80,914**	**–**	**80,914**	**–**	**80,914**	**–**
Cash and cash equivalents	**718,727**	**718,727**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Other financial assets	**116,590**	**68,888**	**16,782**	**2,499**	**27,951**	**19,751**	**–**	**9,976**	**9,775**
of which investments in unconsolidated subsidiaries	22,135	–	–	–	22,135	–	–	–	–
of which at-equity investments	5,816	–	–	–	5,816	–	–	–	–
of which other investments	2,499	–	–	2,499	–	2,499	–	–	2,499
of which other securities	7,276	–	7,276	–	–	7,276	–	–	7,276
of which derivatives included in a hedging relationship	470	–	–	–	–	470	–	470	–
of which derivatives not included in a hedging relationship	9,506	–	9,506	–	–	9,506	–	9,506	–
of which remaining other financial assets	68,888	68,888	–	–	–	–	–	–	–
Liabilities									
Trade payables	**791,777**	**791,777**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Other financial liabilities	**477,196**	**299,280**	**12,683**	**–**	**165,233**	**223,573**	**–**	**222,737**	**836**
of which bonds and other securitized liabilities	201,971	201,971	–	–	–	195,823	–	195,823	–
of which liabilities to banks	5,167	5,167	–	–	–	5,167	–	5,167	–
of which lease liabilities	165,233	–	–	–	165,233	–	–	–	–
of which derivatives included in a hedging relationship	0	–	–	–	–	–	–	–	–
of which derivatives not included in a hedging relationship	11,847	–	11,847	–	–	11,847	–	11,847	–
of which contingent consideration	836	–	836	–	–	836	–	–	836
of which remaining other financial liabilities	92,142	92,142	–	–	–	9,900	–	9,900	–

Financial assets and liabilities that are measured at fair value, or for which a fair value is disclosed in the notes to the consolidated financial statements, are required to be categorized according to the fair value hierarchy. Categorization within the levels of the fair value hierarchy is based on the measurement of the underlying inputs:

Level 1 inputs: quoted prices (unadjusted) in active markets for identical financial assets and liabilities.

Level 2 inputs: quoted market prices that are observable as direct (prices) or indirect (derived from prices) inputs used to measure fair value and that are not quoted prices as defined by Level 1.

Level 3 inputs: inputs that are not based on observable market data.

There were no transfers into or out of the levels of the fair value hierarchy in fiscal year 2023.

The fair values of trade receivables and trade payables, cash and cash equivalents, term deposits, remaining other financial assets as well as remaining other financial liabilities essentially correspond to the carrying amounts; this is due to the predominantly short remaining maturities.

Due to existing factoring agreements, trade receivables that have not been derecognized are measured at fair value. The fair value is calculated based on yield curves observable in the market. These are categorized within Level 2 of the fair value hierarchy.

Derivatives comprise solely currency derivatives. Fair value is determined on the basis of quoted foreign exchange rates, taking into account forward premiums and discounts observable in the market. Accordingly, these are categorized within Level 2 of the fair value hierarchy.

A receivable relating to the former raw material activities of Metallgesellschaft AG that had previously been impaired was allocated to Level 3 financial instruments; its fair value is determined by means of a present value calculation on the basis of the debtor's payment plan.

As the debtor operates a copper mine, its payment plan is influenced by the price of copper. Gains and losses from the subsequent measurement of the receivable are carried in profit or loss from discontinued operations.

The following table shows the changes in fair value in fiscal year 2023:

(EUR thousand)	
Fair value 01/01/2023	**4,247**
Redemption	-778
Interest income	193
Currency translation	-60
Fair value 12/31/2023	**3,602**

As of December 31, 2023, the key non-observable input factors of the above-mentioned receivable consisted of expected annual cash inflows between EUR 1,238 thousand and EUR 2,694 thousand and an average, risk-adjusted discount rate of 7.3 percent.

A potential change in one of the key, non-observable input factors could have affected the fair values of the receivables as follows (the other input factors remaining the same):

	12/31/2023	
	Profit or loss	
(EUR thousand)	Increase	Decrease
Expected cash flows (10% movement)	360	-360
Risk-adjusted discount rate (movement 100 basis points)	-43	44

GEA invested in a fund that primarily invests in new food technologies. The fund shares are assigned to Level 3 of the fair value hierarchy and are reported as other securities. The fair value is determined using the International Private Equity and Venture Capital Valuation Guidelines (IPEV Valuation Guidelines), which provide guidance on typical issues in the valuation of unlisted equity instruments and investment funds. In valuing the fund's shares, the price of recent transactions is taken into account and performance is analyzed to reflect any value adjustments since the most recent transaction.

The following table shows the changes in fair value in fiscal year 2023:

(EUR thousand)	
Fair value 01/01/2023	**3,029**
Deposit	7,698
Redemption	–
Currency translation	-111
Revaluation	-4,173
Fair value 12/31/2023	**6,443**

As of December 31, 2023, the main unobservable input factor is the "Net Total Value to Paid-in-Capital" multiplier. This multiplier indicates the ratio of the value of fund shares plus dividends to paid in capital.

GEA's other equity investments that are measured at fair value through other comprehensive income upon their initial recognition as financial assets were also allocated to Level 3 of the hierarchy. Their fair value is determined by using inputs that are not based on observable market data.

GEA's equity investment in an asset management company is also reported under other investments and allocated to Level 3 of the fair value hierarchy. The fair value is determined in accordance with the IPEV Valuation Guidelines using the sum of the parts method.

The following table shows the changes in fair value in fiscal year 2023:

(EUR thousand)	
Fair value 01/01/2023	**2,255.0**
Deposit	–
Redemption	–
Revaluation	-1,642.0
Fair value 12/31/2023	**613.0**

As of December 31, 2023, the main unobservable input parameters are the value of the asset management and a licensing model, as well as the value of the investments held by the company in other entities.

Other financial liabilities resulting from contingent purchase price considerations for acquisitions are assigned to Level 3 of the fair value hierarchy. The fair value of these liabilities is determined by means of present value calculations, which take into account various inputs that are not observable in the market and are based to a large extent on corporate planning, as specified in the respective purchase price clauses.

As of December 31, 2022, a liability of EUR 836 thousand was recognized for the contingent purchase price related to the acquisition of a 100 percent stake in BOS Homogenisers B.V. The residual purchase price amount of EUR 921 thousand was calculated in 2023 and paid to BOS Holding en Onroerend Goed B.V. by group unit GEA Nederland B.V.

The fair value of borrower's note loans and liabilities to banks is measured on the basis of the yield curve, taking into account credit spreads. They are therefore categorized within Level 2 of the fair value hierarchy. The interest accrued to the reporting date is included in the fair value.

Included in remaining other financial liabilities is a contractual obligation undertaken in the context of a company acquisition. The fair value of this debt instrument is determined based on the contractually fixed cash flows using the ultimate forward rate published by the European Insurance and Occupational Pensions Authority. Accordingly, it is assigned to Level 2 of the fair value hierarchy.

3.3 Financial instruments: Income and expenses

The measurement effects from financial instruments are largely recognized in profit or loss. The following table shows net income from financial instruments, broken down by the IFRS 9 measurement categories:

	12/31/2023			12/31/2022		
(EUR thousand)	Net income	thereof interest income/ expense	thereof impairment losses/ reversals of impairment losses	Net income	thereof interest income/ expense	thereof impairment losses/ reversals of impairment losses
Financial assets measured at amortized cost	59,889	11,916	-8,374	88,686	6,295	41
Financial assets measured at fair value recognized in other comprehensive income	-1,975	–	-2,018	860	–	801
Equity instruments measured at fair value recognized in other comprehensive income	24	–	–	24	–	–
Financial assets / liabilities measured at fair value through profit or loss	-7,804	–	–	2,628	–	–
Financial liabilities measured at amortized cost	-68,607	-10,051	–	-51,990	-10,453	–
Total	**-18,473**	**1,865**	**-10,392**	**40,208**	**-4,158**	**842**

3.4 Derivative financial instruments and netting agreements

Derivative financial instruments

The following table presents the notional values and fair values of the derivative financial instruments as of the reporting date. The notional value in foreign currency is translated at the closing rate.

	12/31/2023		12/31/2022	
(EUR thousand)	Notional value	Fair value	Notional value	Fair value
Assets				
Currency derivatives not included in a hedging relationship	655,483	6,278	337,278	9,506
Currency derivatives included in a cash flow hedge	–	–	7,290	470
Total	**655,483**	**6,278**	**344,568**	**9,976**
Liabilities				
Currency derivatives not included in a hedging relationship	352,463	2,438	684,527	11,847
Currency derivatives included in a cash flow hedge	–	–	–	–
Total	**352,463**	**2,438**	**684,527**	**11,847**

Derivative financial instruments not included in recognized hedging relationships

Derivatives that are not held for sale and not included in hedging relationships are reported here. This item therefore includes derivative financial instruments that are used to hedge currency risks as part of financial risk management, but for which compliance with the hedge accounting requirements of IFRS 9 is not documented (economic hedges). The change in fair value is recognized in profit or loss.

Derivative financial instruments included in recognized hedging relationships

As part of hedging its currency risk, GEA determines the existence of an economic relationship between the hedging instrument and the hedged item based on the amount, currency, and timing of the respective cash flows. GEA assesses whether the designated derivative is expected to be effective with respect to changes in the cash flows of the hedged item using the hypothetical derivative method.

To hedge its currency risk, GEA designates the cash element of forward exchange contracts at a hedge ratio of 1:1. The forward elements of forward exchange contracts are excluded from designation. They are recognized and disclosed separately in equity under the cost of hedging reserve. The critical terms of the forward exchange contract correspond to the hedged item.

Currency derivatives with a maturity of less than one year are concluded to hedge foreign currency risks. As of December 31, 2023, the average hedging rate is 1.09 for the EUR/USD currency pair (previous year: 1.04).

The following table shows the hedged items designated as cash flow hedges:

(EUR thousand)	Cash flow hedge reserve	Cost of hedging reserve
12/31/2023		
Exchange rate risk		
Sales	7	-28
Inventory purchases	–	–
12/31/2022		
Exchange rate risk		
Sales	167	-86
Inventory purchases	–	–

As of December 31, 2023, no material hedge ineffectiveness was identified for hedging relationships designated as cash flow hedges.

If a hedged forecast transaction (hedged item) subsequently results in the recognition of a non-financial item (e.g. inventories), the cumulative amount of the cash flow hedge reserve and the hedging cost reserve is recognized directly in the cost of the non-financial item as soon as it is recognized in the balance sheet.

For all remaining hedged forecast transactions, the amount recognized in the cash flow hedge reserve and the cost of hedging reserve is reclassified to profit or loss as soon as the hedged future cash flows affect profit or loss.

The following table shows the hedging instruments designated as cash flow hedges:

	as of reporting date			during the reporting period				
(EUR thousand)	Notional value	Assets	Liabilities	Line item in the statement of financial position that includes the hedging instrument	Change in fair value of the hedging instrument - recognized in accumulated other comprehensive income	Costs of hedging - recognized in accumulated other comprehensive income	Amount reclassified from the cash flow hedge reserve into profit or loss	Amount reclassified from the cost of hedging reserve into profit or loss
2023								
Exchange rate risk								
Currency derivatives - Sales	4,114	–	–	other financial assets, other financial liabilities	68	-65	-299	149
Currency derivatives - Inventory purchases	–	–	–	other financial assets, other financial liabilities	–	–	–	–
2023								
Exchange rate risk								
Currency derivatives - Sales	11,203	470	–	other financial assets, other financial liabilities	-82	-291	1,674	377
Currency derivatives - Inventory purchases	–	–	–	other financial assets, other financial liabilities	–	–	–	–

In both the current fiscal year and the previous year, no amounts were reclassified to the cost of inventories.

The following table includes a reconciliation of the relevant equity components and an analysis of the items of accumulated other comprehensive income resulting from the recognition of cash flow hedges:

(EUR thousand)	Cash flow hedge reserve	Cost of hedging reserve
As of 01/01/2022	**-947**	**-147**
Change in the fair value		
Exchange rate risk - Sales	-82	-291
Exchange rate risk - Inventory purchases	–	–
Amount reclassified into profit or loss		
Exchange rate risk - Sales	1,674	377
Exchange rate risk - Inventory purchases	–	–
Amount included in the initial cost of non-financial items		
Exchange rate risk - Inventory purchases	–	–
Taxes on movements in reserves during the reporting period	-478	-25
As of 12/31/2022	**167**	**-86**
As of 01/01/2023	**167**	**-86**
Change in the fair value		
Exchange rate risk - Sales	68	-65
Exchange rate risk - Inventory purchases	–	–
Amount reclassified into profit or loss		
Exchange rate risk - Sales	-299	149
Exchange rate risk - Inventory purchases	–	–
Amount included in the initial cost of non-financial items		
Exchange rate risk - Inventory purchases	–	–
Taxes on movements in reserves during the reporting period	71	-26
As of 12/31/2023	**7**	**-28**

Netting agreements

GEA Group Aktiengesellschaft has entered into netting agreements with banks under the German Master Agreement for Financial Derivatives Transactions. As a general rule, the amounts owed under such agreements by each counterparty from all outstanding transactions in the same currency on a single day are aggregated to a single net amount payable by one party to the other. In the event of a credit event, such as late payment, all outstanding transactions under the agreement will be terminated, the value on termination calculated, and a statement of account is prepared on a net basis.

The following table shows the financial assets and liabilities for which the group as a whole has entered into netting agreements:

(EUR thousand)	Gross amounts of financial assets/liabilities	Net amounts of financial assets/liabilities, presented in the balance sheet	Respective amounts not netted in the balance sheet	Net amounts
12/31/2023				
Receivables from derivatives	5,994	5,994	2,058	3,936
Liabilities from derivatives	2,179	2,179	2,058	121
12/31/2022				
Receivables from derivatives	9,814	9,814	7,621	2,193
Liabilities from derivatives	11,366	11,366	7,621	3,745

The receivables and liabilities shown are carried under other financial assets and other financial liabilities respectively.

4. Acquisitions

Acquisition of separators and decanters service business in Canada

On September 18, 2023, GEA Canada Inc. concluded a purchase agreement with the Appulse Corporation for the acquisition of 100 percent of the shares and voting rights in Centrifuges Unlimited Inc. With the closing on November 1, 2023, GEA obtained control over Centrifuges Unlimited Inc., whose business includes the sale and leasing of new and refurbished separators, the sale of spare parts for separators as well as maintenance and repair services.

The acquisition further expands GEA's service business in separators and decanters in the North American market. Going forward, GEA intends to retain the existing Centrifuges Unlimited Inc. brand and to leverage its existing market presence to further expand its market share.

Based on the estimate date statements provided by the seller, the estimated fair value of the consideration amounted to EUR 4.5 million at the acquisition date. The payment was made in cash. The final purchase price will be determined on the basis of the final closing date statements after the closing of the transaction.

The following table summarizes the recognized amounts of assets acquired and assumed liabilities at the date of acquisition:

(EUR thousand)	2023
Property, plant and equipment	2,633
Intangible assets	1,521
Deferred taxes	31
Inventories	3,163
Trade receivables	1,488
Cash and cash equivalents	400
Other current assets	21
Non-current financial liabilities	-4,077
Current employee benefit obligations	-123
Other current financial liabilities	-242
Trade payables	-894
Other current liabilities	-596
Total identifiable net assets acquired	**3,325**

Intangible assets were valued according to the relief from royalty method and the multi-period excess earnings method. The relief from royalty method measures the fair value of an asset by calculating the present value of the estimated royalty payments that are saved by owning the asset. The multi-period excess earnings method measures the present value of the expected net cash flows generated by an asset after deduction of all cash flows related to contributory assets. The fair value of inventories was estimated taking into account its aging structure.

Contractual trade receivables with a gross amount of EUR 1,508 thousand, of which EUR 21 thousand were expected to be uncollectible, were transferred.

The acquisition resulted in goodwill of EUR 1,275 thousand, which is assigned to the Separation & Flow Technologies division. The goodwill results mainly from market access, technical expertise, and potential synergies. It is not expected that the goodwill recognised will be deductible for tax purposes.

The fair value measurements of the acquired assets and liabilities are provisional. If new information obtained within one year of the date of acquisition about facts and circumstances that existed at the date of acquisition and that would have led to adjustments to the above amounts or to additional provisions, the valuation of the acquisition will be adjusted.

GEA incurred expenses totaling EUR 683 thousand in connection with the acquisition, which were primarily related to external legal advice and due diligence and were recognized under administrative expenses.

In the two months until December 31, 2023, Centrifuges Unlimited Inc. contributed revenues of EUR 670 thousand and losses of EUR 230 thousand to the consolidated profit for the period. If the acquisition had occurred on January 1, 2023, the Executive Board estimates that consolidated revenues of EUR 7,412 thousand and a consolidated profit of EUR 469 thousand would have been realized. In determining these amounts, it is assumed that the provisionally calculated adjustments to the fair value at the acquisition date would have been the same if the acquisition had occurred on January 1, 2023.

5. Divestments

5.1 Transport cooling business in South Africa

5.1.1 Companies sold

On January 31, 2023, GEA completed the sale of its transport cooling business in South Africa, which was contractually agreed on September 19, 2022. Under the agreement with South African company Transport Cooling Africa Proprietary Limited and the Swedish Beijer Ref AB, GEA agreed to sell the assets and liabilities of the transport cooling business and transfer the relevant employees by means of an asset deal.

The transport cooling business was part of the business activities of GEA Africa Proprietary Limited, Midrand, South Africa. It comprises the supply of transport cooling products for trucks and trailers and was allocated to the Heating & Refrigeration Technologies division.

The assets and liabilities sold in the transaction (including goodwill) formed a disposal group within the meaning of IFRS 5 and were classified as "held for sale" as of September 30, 2022. In fiscal year 2022, expenses of EUR 2,711 thousand (including the impairment of allocated goodwill of EUR 1,698 thousand) were recognized in connection with this transaction and classified as restructuring expenses.

Agreement on the final sale price was reached on April 24, 2023. This led to a partial reimbursement of the purchase price to the purchaser. Overall, the sale resulted in a deconsolidation loss of EUR 421 thousand for GEA in fiscal year 2023 (including translation differences of EUR 9 thousand), which was recognized in other expenses. Furthermore, additional expenses of EUR 893 thousand were recognized in fiscal year 2023 in connection with the transaction, including transaction costs for consulting and lawyers as well as IT expenses, all of which are reported under general and administrative expenses.

Overall, restructuring expenses of EUR 4,025 thousand (of which EUR 1,314 thousand in 2023) were recognized in connection with the disposal of the transport cooling business.

5.1.2 Assets and liabilities sold

At the time of the sale, the following assets and liabilities were sold:

(EUR thousand)	2023
Property, plant and equipment	-96
Goodwill	-3,102
Inventories	-9,477
Trade receivables	-2,251
Total assets	**-14,926**
Other non-current financial liabilities	28
Other current financial liabilities	55
Trade payables	3,484
Total equity and liabilities	**3,567**
Net assets and liabilities	-11,359
Consideration received, satisfied in cash	10,947
Cash and cash equivalents disposed of	–
Net cash inflows	10,947

5.2 Milling systems business in Italy

5.2.1 Companies sold

On March 31, 2023, GEA completed the sale of its milling systems business in Italy, which was contractually agreed on the same date. Under the agreement with Italian company Golfetto Sangati Industries S.r.l., GEA agreed to sell the assets and liabilities of the milling systems business and transfer the relevant employees by means of an asset deal.

The milling systems business was part of the business activities of GEA group company Golfetto Sangati S.r.l., Galliera Veneta, Italy. It comprises the development, construction and installation of turnkey systems for milling and processing wheat, rice and maize and was allocated to the Food & Healthcare Technologies division.

A contingent reimbursement of EUR 533 thousand was agreed between GEA and the purchaser. Since GEA considers this payment to be sufficiently certain, it was taken into account in determining the deconsolidation effect and the corresponding amount was recognized in current provisions.

The sale of the milling systems business led to a deconsolidation loss of EUR 3,539 thousand for GEA in the fiscal year 2023, which was recognized in other expenses, as well as additional expenses of EUR 448 thousand. The additional expenses include transaction costs for consulting and legal fees and IT expenses, which are recognized in general and administrative expenses. Overall, restructuring expenses of EUR 3,987 thousand were recognized in connection with the transaction.

5.2.2 Assets and liabilities sold

At the time of the sale, the following assets and liabilities were sold:

(EUR thousand)	2023
Property, plant and equipment	-544
Goodwill	-352
Other intangible assets	-922
Inventories	-3,188
Total assets	**-5,006**
Total equity and liabilities	**–**
Net assets and liabilities	-5,006
Consideration received, satisfied in cash	2,000
Cash and cash equivalents disposed of	–
Net cash inflows	2,000
Contingent reimbursement	-533

5.3 Sale of refrigeration contracting and service operations in Spain and Italy in fiscal year 2021

The sale of the refrigeration contracting and service operations in Spain and Italy, which were allocated to the Heating & Refrigeration Technologies division, was completed in fiscal year 2021. Here, all shares in the Spanish company GEA Refrigeration Ibèrica S.A., Alcobendas, Spain, and the Italian company GEA Refrigeration Italy S.p.A., Castel Maggiore, Italy, were sold. On February 8, 2023, an agreement regarding the final purchase price was reached with Clauger SAS, the buyer of both companies. In this context, GEA reimbursed the purchaser EUR 296 thousand, increasing the deconsolidation loss to EUR 8,634 thousand. Additionally, in 2021, a contingent consideration amounting to EUR 1,119 thousand was agreed upon with the buyer, which has been reported as a receivable in other current financial assets. A portion of this receivable in the amount of EUR 448 thousand was impaired in the fiscal year 2023, which increased the deconsolidation loss to EUR 9,082 thousand. In line with the accounting treatment of the transaction in fiscal year 2021, the impact from the final purchase price agreement and the impairment were classified as restructuring expenses.

5.4 Sale of the Bock Group in fiscal year 2021

GEA also completed the sale of shares in the Bock Company Group in fiscal year 2021. The Bock Group owned 100 percent of the shares in GEA Bock GmbH, Frickenhausen, Germany, GEA Bock Czech s.r.o., Stribro, Czech Republic, and GEA Refrigeration India Pvt. Ltd, Vadodara, India. In addition, the assets and liabilities of GEA Refrigeration Technology (Suzhou) Co, Suzhou, China, GEA Westfalia Australia Pty Ltd, Melbourne, Australia, belonging to the Bock Group, as well as the inventories of GEA Africa Proprietary Ltd, Midrand, South Africa, were transferred to the buyer as part of further asset deals. Part of the purchase price agreed in 2021 was converted into a loan to the purchaser that matures on December 31, 2023. The amount of the loan at origination was EUR 12,338 thousand but has been measured at amortized cost and is reported under other financial assets. During fiscal year 2023, the acquirer prepaid the loan to GEA.

6. Consolidated Balance Sheet Disclosures: Assets

6.1 Property, plant and equipment

Property, plant and equipment changed as follows:

(EUR thousand)	Land and buildings	Technical equipment and machinery	Other equipment, operating and office equipment	Assets under construction	**Total**
01/01/2022					
Cost	744,539	505,563	439,285	38,279	**1,727,666**
Cumulative depreciation and impairment losses	-359,304	-390,944	-325,775	-2,533	**-1,078,556**
Carrying amount	**385,235**	**114,619**	**113,510**	**35,746**	**649,110**
Changes in 2022					
Additions	41,502	27,530	61,843	75,031	**205,906**
Disposals and reclassifications as held for sale	-3,156	-1,249	-994	-362	**-5,761**
Depreciation	-47,292	-25,424	-51,658	-9	**-124,383**
Impairment losses	–	-2,121	-870	–	**-2,991**
Changes in consolidated group and business combinations	–	–	–	–	**–**
Currency translation	-350	-563	-443	-178	**-1,534**
Other changes	5,837	9,719	4,217	-17,376	**2,397**
Carrying amount 12/31/2022	**381,776**	**122,511**	**125,605**	**92,852**	**722,744**
01/01/2023					
Cost	765,923	528,081	485,307	93,931	**1,873,242**
Cumulative depreciation and impairment losses	-384,147	-405,570	-359,702	-1,079	**-1,150,498**
Carrying amount	**381,776**	**122,511**	**125,605**	**92,852**	**722,744**
Changes in 2023					
Additions	45,081	36,976	67,717	69,963	**219,737**
Disposals and reclassifications as held for sale	-2,445	-1,952	-905	-3,022	**-8,324**
Depreciation	-46,050	-27,536	-56,108	–	**-129,694**
Impairment losses and reversal of impairment losses	-670	-605	156	-388	**-1,507**
Changes in consolidated group and business combinations	1,914	–	892	175	**2,981**
Currency translation	-6,995	-2,550	-6,495	896	**-15,144**
Other changes	46,032	19,533	21,222	-81,302	**5,485**
Carrying amount 12/31/2023	**418,643**	**146,377**	**152,084**	**79,174**	**796,278**
12/31/2023					
Cost	824,687	559,648	510,348	80,614	**1,975,297**
Cumulative depreciation and impairment losses	-406,044	-413,271	-358,264	-1,440	**-1,179,019**
Carrying amount	**418,643**	**146,377**	**152,084**	**79,174**	**796,278**

*) The item Technical equipment and machinery includes reversals of impairment losses totalling 212 TEUR.

The impairment loss recognized in 2023 mainly relates to assets within technical equipment and machinery and buildings of the Food & Healthcare Technologies division that are no longer classified as recoverable. The amount is mainly connected to impairment losses on pilot product lines and capitalised improvements on buildings and amounts to EUR 931 thousand.

Leases

The carrying amounts of the right-of-use assets, including changes during the reporting period, are shown below.

(EUR thousand)	Land and buildings	Technical equipment and machinery	Other equipment, operating and office equipment	Vehicles	Computer Hardware and other IT Equipment	**Total**
01/01/2023						
Carrying amount	112,002	333	2,918	31,820	13,518	**160,591**
Changes in 2023						
Additions	17,914	209	968	35,527	832	**55,450**
Disposals and reclassifications as held for sale	–	–	–	–	–	**–**
Depreciation	-32,922	-271	-1,022	-22,649	-8,711	**-65,575**
Changes in consolidated group and business combinations	1,905	–	–	–	–	**1,905**
Currency translation	-3,549	–	–	-2,879	–	**-6,428**
Other changes	606	-10	-251	4,965	–	**5,310**
Carrying amount 12/31/2023	**95,956**	**261**	**2,613**	**46,784**	**5,639**	**151,253**

The following amounts were recognized in the income statement in the reporting period:

(EUR thousand)	01/01/2023-12/31/2023	01/01/2022-12/31/2022
Interest expenses for Lease Liabilities	5,809	4,292
Expense from short-term leases	4,253	6,219
Expense for small-ticket-leases	2,676	2,349
Expense from variable lease payments	7,720	4,665

The statement of cash flows includes the following amounts:

(EUR thousand)	01/01/2023-12/31/2023	01/01/2022-12/31/2022
Total Cash-Out for Lease contracts	84,491	81,207

The table below shows possible future lease payments that are not included in the measurement of lease liabilities at the balance sheet date, in the event that:

- Renewal options are exercised for which it is “not reasonably certain” that they will be exercised at the time the financial statements are prepared.
- Termination options are not exercised for which it is deemed “reasonably certain“ that they will be exercised at the time the financial statements are prepared.

(EUR thousand)	2024	2025	2026	2027	2028
Possible additional payments due to the utilization of extension options	1,749	3,594	4,229	4,204	3,697
Possible additional payments due to unused termination options*	6,896	5,350	3,650	1,378	1,092

*) In the case of indefinite term, automatically renewing contracts, if a termination option is not exercised, the term is assumed to be extended by one year.

For periods after December 31, 2028, additional lease payments totaling EUR 27,222 thousand would be possible if all renewal options are exercised for which it is “not reasonably certain” that they will be exercised at the time the financial statements were prepared. Non-exercised termination options that were deemed to be reasonably certain at the time the financial statements were prepared could result in additional lease payments of approximately EUR 1,789 thousand for this period.

As a lessor, GEA leases out real estate.The underlying lease agreements have been classified as operating leases (please see “Investment property”).

Investment property

The carrying amount of investment property totaled EUR 827 thousand at the reporting date (previous year: EUR 825 thousand). Of this amount, EUR 698 thousand (previous year: EUR 698 thousand) is allocable to land and EUR 129 thousand (previous year: EUR 127 thousand) to buildings.

The fair value of investment property amounts to EUR 3,140 thousand (previous year: EUR 3,075 thousand). Since these fair values are calculated on the basis of comparable market-based prices that are determined internally, they are categorized within Level 2 of the fair value hierarchy.

6.2 Goodwill

The following table shows the allocation of goodwill to the divisions bearing goodwill:

(EUR thousand)	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	**Total**
Carrying amount 12/31/2021	**846,798**	**193,422**	**203,528**	**110,639**	**126,854**	**1,481,241**
Additions	–	–	–	–	–	**–**
Disposals and reclassifications as held for sale	–	–	-550	–	-5,120	**-5,670**
Carrying amount 12/31/2022	**846,798**	**193,422**	**202,978**	**110,639**	**121,734**	**1,475,571**
Additions	1,275	–	–	–	–	**1,275**
Disposals and reclassifications as held for sale	–	–	-352	–	-386	**-738**
Carrying amount 12/31/2023	**848,073**	**193,422**	**202,626**	**110,639**	**121,348**	**1,476,108**

Reclassifications in fiscal year 2022

In fiscal year 2022, additional goodwill in the amount of EUR 706 thousand that had been assigned to the Heating & Refrigeration Technologies division was allocated to the refrigeration contracting and service business in France and classified as held for sale. This goodwill was derecognized upon completion of the transaction on February 28, 2022.

As part of the disposal of the metering, blending and calibration activities of GEA Diessel GmbH, the goodwill of EUR 417 thousand allocated to the Food & Healthcare Technologies division was classified as held for sale. This goodwill was derecognized upon completion of the sale on July 15, 2022.

Additional goodwill of EUR 134 thousand allocated to the Food & Healthcare Technologies division, classified as held for sale, was attributable to an asset deal and was derecognized upon completion of the transaction in fiscal year 2022 as well.

Goodwill of EUR 4,414 thousand allocated to the Heating & Refrigeration Technologies division was attributable to the disposal of the transport cooling business in South Africa and was classified as held for sale as of December 31, 2022, and impaired in the amount of EUR 1,698 thousand.

Additions and disposals in fiscal year 2023

In the first half of 2023, as part of the agreement to finalize the purchase price for the divested transport cooling business in South Africa, the goodwill allocated to the Heating & Refrigeration Technologies division was reduced by an additional EUR 386 thousand. This reduction came in addition to the disposal of goodwill classified as held for sale and impaired already in the previous year.

As part of the sale of the milling operations business in Italy that was also completed in the first half of 2023, goodwill allocated to the Food & Healthcare Technologies division in the amount of EUR 352 thousand was derecognized.

In connection with the acquisition of Centrifuges Unlimited that was completed on November 1, 2023, GEA acquired goodwill in the amount EUR 1,275 thousand, which has been allocated to the Separation & Flow Technologies division. Additional information on the acquisition can be found in section 4 of the Notes to the Consolidated Financial Statements.

Impairment test

In terms of the annual impairment test on October 31, 2023 (previous year: October 31, 2022), the goodwill was tested for impairment at the level of the groups of cash-generating units with goodwill. For this purpose, the recoverable amounts of the cash-generating divisions with goodwill are compared with their carrying amounts, including goodwill.

The recoverable amount for these units is determined by calculating the value in use using the "discounted cash flow" method. The cash flows used are, generally, the operating cash flows after taxes from the consolidated budget and medium-term planning prepared by the Executive Board. Besides the months November and December of the 2023 fiscal year, this covers the budget for 2024 and two further planning years. The corresponding plan values were derived using a "bottom-up" approach. The Supervisory Board approved the planning for 2024 (budget) and took note of the medium-term planning for the years 2025 and 2026. Assumptions for the period beyond the planning horizon are based on the cash flows in the last planning year, extrapolated using a uniform growth rate of 1.5 percent (previous year: 1.5 percent).

The planning assumes a continuation of stable growth in the food and beverage sales markets. The planning assumptions take into account, in particular, expectations regarding revenue trends as well as EBITDA before restructuring measures. In addition, growth forecasts for individual areas also factor in actual past growth rates. Future acquisitions are not included in the planning process. EBITDA before restructuring measures is expected to increase slightly to significantly over the planning period depending on the division.

Due to a high degree of uncertainty from the Russia-Ukraine war, GEA is continuously assessing the impact of the war on each of the company's divisions. For GEA, the potential escalation of sanctions and the associated effects on the profit situation in particular represent risks that must be taken into account. Due to measures taken during the year, the war did not have a material impact on any division in the countries concerned in the reporting year with regard to the determination of the value in use and therefore also not on the result of the impairment test. For this reason, the scenario creation made in the previous year was not necessary.

GEA continuously monitors the legislation related to climate change. So far, no indications have been identified that would materially affect GEA's impairment test. If necessary, the basic assumptions used in the calculation of value in use would be adjusted accordingly.

The total cost of capital assumed for discounting is based on a risk-free interest rate of 2.75 percent (previous year: 1.75 percent) and a market risk premium of 6.75 percent (previous year: 7.25 percent). In addition, beta factors derived from the respective peer group, a borrowing risk premium and capital structure were taken into account for each measurement object. Additionally, specific tax rates, country risk premiums and inflation differentials are applied to the cash-generating groups with goodwill.

Cash flows for the individual divisions are discounted using the following rates:

	10/31/2023		10/31/2022	
(%)	Discount rate (after-tax)	Discount rate (pre-tax)	Discount rate (after-tax)	Discount rate (pre-tax)
Separation & Flow Technologies	10.21	12.36	9.46	11.29
Liquid & Powder Technologies	10.17	11.92	9.24	10.56
Food & Healthcare Technologies	10.12	11.63	9.39	10.67
Farm Technologies	10.05	11.91	8.79	10.19
Heating & Refrigeration Technologies	9.31	10.68	8.64	9.82

The impairment test performed for the goodwill confirmed its recoverability. Even if the above-mentioned parameters were to change, none of the cash-generating groups discussed in the previous passage would be impaired. Moreover GEA was able to confirm the recoverability of the goodwill even on the basis of the latest capital market parameters as of December 31, 2023.

6.3 Other intangible assets

The carrying amount of intangible assets changed as follows:

(EUR thousand)	Market-related intangible assets	Customer-related intangible assets	Contract-based intangible assets	Technology-based intangible assets	Internally generated intangible assets	**Total**
01/01/2022						
Cost	108,255	279,758	173,260	159,519	363,035	**1,083,827**
Cumulative amortization and impairment losses	-26,391	-217,391	-120,857	-106,488	-231,180	**-702,307**
Carrying amount	**81,864**	**62,367**	**52,403**	**53,031**	**131,855**	**381,520**
Changes in 2022						
Additions	–	–	25,249	3,451	33,439	**62,139**
Disposals and reclassifications as held for sale	-80	–	-14	–	-43	**-137**
Amortization	-930	-6,671	-6,580	-8,723	-32,944	**-55,848**
Impairment losses	-398	-3,655	-154	-439	-822	**-5,468**
Changes in consolidated group and business combinations	–	–	–	–	–	**–**
Currency translation	507	-6	2	271	218	**992**
Other changes	–	–	-1,535	980	-885	**-1,440**
Carrying amount 12/31/2022	**80,963**	**52,035**	**69,371**	**48,571**	**130,818**	**381,758**
01/01/2023						
Cost	107,817	280,046	189,994	161,368	390,510	**1,129,735**
Cumulative amortization and impairment losses	-26,854	-228,011	-120,623	-112,797	-259,692	**-747,977**
Carrying amount	**80,963**	**52,035**	**69,371**	**48,571**	**130,818**	**381,758**
Changes in 2023						
Additions	–	–	20,052	6,039	38,945	**65,036**
Disposals and reclassifications as held for sale	-304	–	–	-1,174	-315	**-1,793**
Amortization	-846	-5,846	-6,902	-8,919	-29,702	**-52,215**
Impairment losses	-2,550	-288	–	-2,020	-1,539	**-6,397**
Changes in consolidated group and business combinations	251	1,271	–	–	–	**1,522**
Currency translation	342	-32	-37	29	-150	**152**
Other changes	–	–	96	500	3,764	**4,360**
Carrying amount 12/31/2023	**77,856**	**47,140**	**82,580**	**43,026**	**141,821**	**392,423**
12/31/2023						
Cost	108,283	281,053	199,119	162,422	420,603	**1,171,480**
Cumulative amortization and impairment losses	-30,427	-233,913	-116,539	-119,396	-278,782	**-779,057**
Carrying amount	**77,856**	**47,140**	**82,580**	**43,026**	**141,821**	**392,423**

The additions to internally generated intangible assets are primarily attributable to the Farm Technologies and Food & Healthcare Technologies divisions. In the Farm Technologies division, costs relating to developments in automated feeding, digital solutions, manure handling and the next generation of conventional rotors, including control units, were capitalized. The additions in the Food & Healthcare Technologies division are largely attributable to developments in the areas of thermoforming and slicers, as well as the associated automation solutions.

The impairment loss recognized in the current fiscal year mainly relates to market-related, technology-based and internally generated intangible assets. The impairment losses recognized within the market-related intangible assets are described in more detail in the following pragraphs. The impairment loss recognized within the technology-based intangible assets mainly relates to technologies of one company within the Liquid & Powder Technologies division which are no longer deemed as recoverable (EUR 1,167 thousand). The evaluation of two internally generated technologies within the Food & Healthcare Technologies division led to an impairment loss in the amount of EUR 1,539 thousand.

Amortization of intangible assets in the amount of EUR 52,215 thousand in fiscal year 2023 (previous year: EUR 55,848 thousand) is reported in cost of sales and, where this relates to discontinued operations, in profit or loss from discontinued operations.

In fiscal year 2023, expenditure on research and development amounted to EUR 146,309 thousand (previous year: EUR 132,083 thousand). These figures include refunded expenses totaling EUR 13,591 thousand (previous year: EUR 12,488 thousand) that are recorded in cost of sales. For more details, please refer to the “Research and development” section under “Fundamental Information about the Group” in the Group Management Report.

An indefinite useful life is assumed for market-related intangible assets of EUR 71,092 thousand (previous year: EUR 73,772 thousand). These assets are company and product names of acquired companies. These are established brands in their respective sectors and will continue to be used indefinitely after the company in question has been acquired, which is why there are no indications of a limited useful life. Accordingly, these brands are tested for impairment at least once a year on October 31.

For this purpose, as was the case in the previous year, the carrying amount is initially verified on the basis of the recoverable amount of the cash-generating unit to which the brand belongs. The acquired company represents the cash-generating unit for purposes of the brand impairment test. With regard to the key assumptions for determining the value in use, reference is made to the comments discussing goodwill impairment testing (see section 6.2 of the Notes to the Consolidated Financial Statements).

The useful life of a brand with an indefinite useful live in the Farm Technologies division was reassessed after the measurement date. The reason for the reassessment was the integration of the brand acquired in the past into a new product line. As a result of this reassessment the brand was fully impaired. This resulted in an impairment loss of EUR 1,220 thousand.

The allocation of carrying amounts of acquired brands with indefinite useful lives and the discount rates for purposes of impairment testing are presented in the table below. Company or product names allocated to other brands each accounted for less than 10 percent of the total value of all intangible assets with indefinite useful lives.

	10/31/2023			10/31/2022		
Brand	Carrying amount (EUR thousand)	Discount rate (after-tax) in %	Discount rate (before-tax) in %	Carrying amount (EUR thousand	Discount rate (after-tax) in %	Discount rate (before-tax) in %
Comas (Food & Healthcare Technologies)	15,598	11.08	14.84	15,598	10.52	13.73
Imaforni (Food & Healthcare Technologies)	11,350	11.08	14.07	11,350	10.52	12.96
Aseptomag (Separation & Flow Technologies)	10,173	8.17	9.87	9,847	6.56	7.77
Hilge (Separation & Flow Technologies)	10,035	9.42	12.31	10,035	9.05	11.82
Procomac (Liquid & Powder Technologies)	8,067	10.63	14.00	8,067	10.44	12.94
Other	17,089	8.10-10.63	10.67-13.34	18,875	7.11-10.44	9.59-13.00
Total	**72,312**			**73,772**		

If the value in use of one cash-generating unit is less than its carrying amount, the brand is tested for impairment on the basis of its fair value less costs of disposal (Fair Value Hierarchy Level 3) using the relief from royalty method. Under this approach, the value of a brand is calculated on the basis of the future royalties that GEA would have to pay if it had to license the brands from third parties. The brand-related revenue is multiplied by the estimated royalty rate. The brand-related revenue is derived from the budget and medium-term planning prepared by the Executive Board. The Supervisory Board approved the budget for 2024 and took note of the medium-term planning for fiscal years 2025 and 2026. The royalty rate assumptions are derived from information already available and range between 0.5 percent and 1.5 percent (previous year: 0.5 percent to 1.0 percent) for the fiscal year. The cash flows calculated in this way are then discounted using a brand-specific after-tax discount rate.

The impairment test performed as of the measurement date led to an impairment loss on brands of EUR 1,330 thousand in fiscal year 2023 (previous year: EUR 0 thousand). This is largely (EUR 1,195 thousand) attributable to one brand allocated to the Liquid & Powder Technologies Division for which a recoverable amount of EUR 2,388 thousand was determined. The discount rate after-tax used for the brand is 10.63 percent.

6.4 Other financial assets

Other financial assets are composed of the following items:

(EUR thousand)	12/31/2023	12/31/2022
Investments in unconsolidated subsidiaries	22,592	22,135
At-equity investments	6,404	5,816
Other equity investments	860	2,499
Other securities	10,044	7,276
Receivables from subsidiaries and investment companies	2,276	2,276
Derivative financial instruments	283	514
Miscellaneous other financial assets	4,901	5,645
Other noncurrent financial assets	**47,360**	**46,161**
Other securities	4,041	–
Receivables from subsidiaries and investment companies	6,551	10,515
Derivative financial instruments	5,995	9,462
Miscellaneous other financial assets	45,674	50,452
Other current financial assets	**62,261**	**70,429**
Total	**109,621**	**116,590**

Investments in companies accounted for using the equity method consist of four joint ventures (previous year: one associate and four joint ventures).

Information on credit risks in connection with other financial assets and further information about other financial assets, including derivatives, can be found in section 3 of the Notes to the Consolidated Financial Statements.

6.5 Other assets

Other assets are composed of the following items:

(EUR thousand)	12/31/2023	12/31/2022
Prepaid expenses	4,201	4,937
Other receivables from tax authorities	1,366	1,357
Other noncurrent assets	**5,567**	**6,294**
Prepaid expenses	38,286	33,830
Other receivables from tax authorities	86,660	97,496
Miscellaneous other assets	–	52
Other current assets	**124,946**	**131,378**
Total	**130,513**	**137,672**

6.6 Inventories

Inventories are composed of the following items:

(EUR thousand)	12/31/2023	12/31/2022
Raw materials, consumables, and supplies	201,061	182,741
Work in progress	223,244	212,305
Assets for third parties under construction	15,768	16,989
Finished goods and merchandise	359,655	374,376
Advance payments	42,627	59,904
Total	**842,355**	**846,315**

Inventories of EUR 3,183 million were recognized as an expense in fiscal year 2023 (previous year: EUR 3,102 million). Impairment losses on inventories amounted to EUR 31,117 thousand in the reporting period (previous year: EUR 11,539 thousand). In the current reporting period, prior-year impairment losses on inventories amounting to EUR 3,709 thousand (previous year: EUR 5,783 thousand) were reversed due to changes in assessments. The impairment losses as well as the reversals were recognized in the cost of sales.

6.7 Trade receivables

Trade receivables are composed of the following items:

(EUR thousand)	12/31/2023	12/31/2022
Trade receivables from third parties	742,883	711,210
Trade receivables from affiliated companies	28,005	19,735
Total	**770,888**	**730,945**

Trade receivables include receivables of EUR 1,163 thousand (previous year: EUR 607 thousand) that will not be realized within one year after the reporting date.

The total amount of impairments on trade receivables is EUR 61,358 thousand (previous year: EUR 55,853 thousand).

Additional information concerning impairments related to trade receivables can be found in section 3 of the Notes to the Consolidated Financial Statements.

6.8 Cash and cash equivalents

Cash and cash equivalents are composed of the following items as of the reporting date:

(EUR thousand)	12/31/2023	12/31/2022
Unrestricted cash	611,838	702,344
Restricted Cash	12,048	16,383
Total	**623,886**	**718,727**

Cash and cash equivalents comprise cash funds and demand deposits. Restricted cash mainly consists of bank deposits. Due to the legal restrictions in Russia, cash and cash equivalents of EUR 11,134 thousand (previous year: EUR 14,255 thousand) were available to only a limited extent for group companies not based in Russia as of the reporting date.

During the year, the standard market interest rate for short-term bank deposits in the Eurozone was 2.9 percent (previous year: 0.0 percent). The average interest rate at the end of the year was 4.0 percent (previous year: 1.8 percent).

6.9 Assets and liabilities held for sale

Assets held for sale are reported at a carrying amount of EUR 1,991 thousand (previous year: EUR 15,394 thousand) as of December 31, 2023. This mainly relates to a developed plot of land that is part of the Separation & Flow Technologies division in the USA. The transaction was closed on February 9, 2024.

7. Consolidated Balance Sheet Disclosures: Equity and liabilities

7.1 Equity

Issued capital

The issued capital in the amount of EUR 515,993 thousand (previous year: EUR 496,945 thousand) corresponds to subscribed capital of EUR 520,376 thousand less the notional value of repurchased shares of EUR 4,383 thousand.

Subscribed capital

The subscribed capital of GEA Group Aktiengesellschaft as of December 2023, was EUR 520,376 thousand (previous year: EUR 520,376 thousand). The shares are bearer shares and are divided into 172,331,076 (previous year: 180,492,172) no-par value shares. All shares are fully paid in.

The shares have a notional value of EUR 3.02 each (previous year: EUR 2.883) (rounded). In 2023, as part of the share buyback program, the shares repurchased in previous years with a notional value of EUR 23,529 thousand were redeemed without reducing the amount of subscribed capital.

All shares convey the same rights. Shareholders are entitled to receive dividends as declared and are entitled to one vote per share at the Annual General Meeting. Treasury shares held by the company on the day of the Annual General Meeting do not carry voting rights and are not eligible for dividends.

Treasury shares

Under a resolution adopted by the Annual General Meeting of April 19, 2018 and April 27, 2023, in accordance with section 71(1) no. 8 AktG, GEA Group Aktiengesellschaft is authorized to purchase its own shares in an amount of up to 10 percent of the total amount of its subscribed capital. This authorization was exercised, and a share buyback program was launched on August 12, 2021. Under this share buyback program, 8,161,096 shares totaling 4.52 percent of the subscribed capital of GEA Group Aktiengesellschaft were repurchased via the stock exchange during fiscal years 2021 and 2022. With the approval of the Supervisory Board, the repurchased shares were redeemed without reducing the amount of subscribed capital in November 2023. The redemption of the repurchased shares results in a corresponding increase of the volume of treasury shares that can be repurchased under the current authorisation.

On November 7, 2023, another share buyback program was announced, which will run until early 2025 at the latest. The buyback program began on November 9, 2023, and is set to take place in three tranches. From November 9, 2023 to December 31, 2023, a total of 1,451,583 no-par value shares with an attributable amount of subscribed capital of EUR 4,383 thousand were repurchased as part of this share buy-back program. This corresponds to approximately 0.84 percent of the subscribed capital of GEA Group Aktiengesellschaft. The total value of shares acquired during the 2023 fiscal year amounts to EUR 51,039 thousand. Transaction costs amounting to EUR 15 thousand were recognized directly in equity.

Authorized capital

(EUR thousand)	Annual General Meeting resolution	Expiring on	Amount (EUR thousand)
Authorized Capital I	April 30, 2021	April 29, 2026	52,000
Authorized Capital II	April 30, 2021	April 29, 2026	52,000
Authorized Capital IIII	April 30, 2021	April 29, 2026	52,000
Total			**156,000**

In the case of the Authorized Capital I and in accordance with Article 4(3) of the Articles of Association, the Executive Board is authorized, with the approval of the Supervisory Board, to increase the share capital by up to EUR 52,000 thousand by issuing new no-par value shares against cash contributions until April 29, 2026 (Authorized Capital I) and, in accordance with Article 5(4) of the Articles of Association, to set a starting date for profit rights in case that differs from the date stipulated by law. The authorization may be exercised fully or in partial amounts, on one or several occasions. Shareholders are generally entitled to subscribe to the new shares. The statutory preemptive right may also be granted by the new shares being underwritten by one or more banks with the obligation of offering them to the shareholders for preemptive subscription (indirect preemptive right). The Executive Board is authorized, with the approval of the Supervisory Board, to disapply shareholders' preemptive rights (i) insofar as this is necessary to eliminate fractional amounts, and (ii) in order to grant the creditors of convertible or option bonds with option or conversion privileges or obligations issued by GEA Group Aktiengesellschaft or a subordinate group company of the company a right to subscribe to new shares to the extent to which they would be entitled after exercising the option or conversion rights or after fulfilling conversion obligations. Furthermore, the Executive Board is authorized, with the approval of the Supervisory Board, to stipulate the further details of capital increases from Authorized Capital I and the terms and conditions of the share issue.

In the case of the Authorized Capital II and in accordance with Article 4(4) of the Articles of Association, the Executive Board is authorized, with the approval of the Supervisory Board, to increase the company's share capital by up to EUR 52,000 thousand by issuing new no-par-value shares against cash and/or in-kind contributions until April 29, 2026 (Authorized Capital II) and, in accordance with Article 5(4) of the Articles of Association, to set a starting date for profit rights that differs from the date stipulated by law. The authorization may be exercised fully or in partial amounts, on one or several occasions. Shareholders are generally entitled to subscribe to the new shares. The statutory preemptive right may also be granted by the new shares being underwritten by one or more banks with the obligation of offering them to the shareholders for preemptive subscription (indirect preemptive right). Furthermore, the Executive Board is authorized, with the approval of the Supervisory Board, to disapply shareholders' preemptive rights in the case of capital increases against in-kind contributions, in particular, for the purpose of business combinations or the acquisition of companies, parts of companies, or equity interests in companies or other assets. In addition, the Executive Board is authorized, with the approval of the Supervisory Board, to disapply shareholders' preemptive rights if the new shares are to be issued to persons who are in an employment relationship with GEA Group Aktiengesellschaft or one of its group companies. In such cases, the new shares may also be issued via a bank or another company meeting the requirements of section 186(5) sentence 1 of the AktG. In addition, the Executive Board is authorized, with the consent of the Supervisory Board, to exclude the statutory shareholders' preemptive right to use the scrip dividend to offer shareholders the option (wholly or partially) of contributing their dividend claim in part or in whole as an in-kind contribution to the company in return for new shares in the company. Finally, the Executive Board is authorized, with the approval of the Supervisory Board, to disapply shareholders' preemptive rights (i) insofar as it is necessary to eliminate fractional amounts, and (ii) in order to grant the creditors of convertible or option bonds with option or conversion privileges or obligations issued by GEA Group Aktiengesellschaft or a subordinate group company of the Company a right to subscribe to new shares to the extent to which they would be entitled after exercising the option or conversion rights or after fulfilling conversion obligations. The Executive Board is furthermore authorized, with the approval of the Supervisory Board, to stipulate the further details of the capital increases from Authorized Capital II and the terms and conditions of the share issue.

In the case of the Authorized Capital III and in accordance with Article 4(5) of the Articles of Association, the Executive Board is authorized, with the approval of the Supervisory Board, to increase the share capital of the company by up to EUR 52,000 thousand by issuing new no-par value shares against cash contributions until April 29, 2026 (Authorized Capital III) and, in accordance with Article 5(4) of the Articles of Association, to define a starting date for profit rights that differs from the date stipulated by law. The authorization may be exercised fully or in partial amounts, on one or several occasions. Shareholders are generally entitled to subscribe to the new shares. The statutory preemptive right may also be granted by the new shares being underwritten by one or more banks with the obligation of offering them to the shareholders for preemptive subscription (indirect preemptive right). The Executive Board is authorized, with the approval of the Supervisory Board, to exclude shareholders' subscription rights if the issue price of the new shares is not significantly lower than the stock exchange price for company shares of the same kind at the time of setting the issue price. In line with the modalities of this disapplication of preemptive rights, the shares issued in accordance with section 203(1) and section 186(3) sentence 4 of the AktG may not exceed 10% of the share capital of the Company either at the time at which this authorization takes effect or at the time at which it is exercised (upper limit). The upper limit is reduced by the proportionate amount of the share capital allocable to shares of the company issued during the term of the Authorized Capital III under disapplication of preemptive rights in accordance with section 71(1) no. 8 sentence 5, and Section 186(3) sentence 4 of the AktG. The upper limit is also reduced by the proportionate amount of the share capital allocable to shares issued to service convertible or option bonds with option or conversion privileges or obligations issued by GEA Group Aktiengesellschaft or a subordinate group company of the company, as long as the convertible or option bonds have been issued during the term of the Authorized Capital III under disapplication of preemptive rights in accordance with section 186(3) sentence 4 of the AktG. Furthermore, the Executive Board is authorized, with the approval of the Supervisory Board, to disapply shareholders' preemptive rights (i) insofar as it is necessary to eliminate fractional amounts, and (ii) in order to grant the creditors of convertible or option bonds with option or conversion privileges or obligations issued by GEA Group Aktiengesellschaft or a subordinate group company of the Company a right to subscribe to new shares to the extent to which they would be entitled after exercising the option or conversion rights or after fulfilling conversion obligations. The Executive Board is furthermore authorized, with the approval of the Supervisory Board, to stipulate the further details of the capital increases from Authorized Capital III and the terms and conditions of such share issuance.

Contingent capital

(EUR thousand)	12/31/2023	12/31/2022
Bonds with warrants and convertible bonds according Annual General Meeting resolution April 30, 2021	52,000	52,000
Total	**52,000**	**52,000**

Under a resolution adopted by the Annual General Meeting on April 30, 2021, the share capital was contingently increased by up to EUR 52,000 thousand subject to the issuance of bearer shares (Article 4(6) of the Articles of Association, Contingent Capital 2021). The contingent capital increase will only be implemented to the extent that the holders of conversion or option privileges from convertible bonds or option bonds, profit participation rights or profit participating bonds or a combination of these instruments issued against cash contributions by GEA Group Aktiengesellschaft or a subordinate group company of the company on the basis of the authorization by the Annual General Meeting resolution dated April 30, 2021, exercise their conversion or option privileges, or, if they are obliged to convert or exercise options, satisfy their obligation to convert or exercise options, and if no cash settlement is granted or own shares or shares of another listed company are used in settlement. The new shares are to be issued at the option or conversion price to be specified in accordance with the aforementioned authorization resolution in each case. The new shares bear dividend rights from the beginning of the fiscal year in which they were created as a result of the exercising of conversion or option rights or the fulfillment of conversion or option obligations. The Executive Board is authorized to determine the further details of the implementation of the contingent capital increase.

The Executive Board is authorized, with the consent of the Supervisory Board, to issue bearer or registered convertible bonds or bonds with warrants, profit participation rights or participating bonds or a combination of these instruments (collectively referred to as “bonds”) with a total nominal value of up to EUR 750,000 thousand on one or more occasions through April 29, 2026 and to grant or impose on the holders of such bonds conversion or option rights or obligations for shares in the company with a proportionate share of share capital totaling up to EUR 52,000 thousand in accordance with the relevant terms and conditions of the bonds. The bonds may be issued against cash or in-kind contributions. The respective terms and conditions may also include a conversion or option obligation. The bonds may also be issued by GEA Group Aktiengesellschaft group company within the meaning of section 18 of the AktG. In such cases, the Executive Board is authorized, with the approval of the Supervisory Board, to assume a guarantee for the bonds on behalf of the company and to grant or impose conversion or option rights or obligations on the holders of bonds in exchange for GEA Group Aktiengesellschaft shares. Shareholders are generally entitled to subscribe to the bonds. The statutory subscription right may also be granted by the bonds being underwritten by a bank or bank consortium with the obligation of offering them to the shareholders for preemptive subscription (indirect subscription right). The Executive Board is authorized, subject to the consent of the Supervisory Board, to exclude fractional shares from the shareholders’ subscription rights and to exclude the subscription rights under certain conditions and within the limits set by the Annual General Meeting. The exclusion of the preemptive right is possible in such cases where bonds are issued against contributions in kind (in particular for the purpose of business combinations or the acquisition of companies, parts of companies, or equity interests in companies or other assets) or in cases where bonds are issued for cash at an issue price that does not materially fall below the theoretical market value of the bonds. The pro rata amount of capital stock represented by shares to be issued to service bonds carrying conversion or option rights or obligations that are issued with the exclusion of shareholders’ preemptive rights may not exceed 10 percent in the aggregate of the company’s capital stock outstanding at the time the resolution is adopted by the Annual General Meeting (excluding the issue with the exclusion of preemptive rights for fractional amounts); for such purposes, shares issued or sold with the exclusion of preemptive rights on the basis of other authorizations granted to the Executive Board during the term of such authorization are also taken into account. These offsets no longer apply, and the original amount of the authorization will be available again as soon as a subsequent Annual General Meeting authorizes the Executive Board to issue or sell shares again while excluding shareholders’ preemptive rights.

As in the previous year, no bonds with warrants or convertible bonds were issued in fiscal year 2023.

Capital reserves

Capital reserves primarily reflect the effects from the business combination of the former Metallgesellschaft Aktiengesellschaft and the former GEA AG as well as premiums from issuing shares of the former Metallgesellschaft AG.

Capital reserves were unchanged compared with the previous year at EUR 1,217,861 thousand.

Retained earnings and comprehensive income

The changes in retained earnings and net retained profits are reported in the statement of changes in equity. Actuarial gains and losses on the measurement of non-current employee benefit obligations are included in retained earnings. In addition, retained earnings are reduced by offsetting the treasury shares that have been acquired or retired.

The distribution of profits is based on the annual financial statements of GEA Group Aktiengesellschaft prepared in accordance with the HGB.

Accumulated other comprehensive income

The accumulated other comprehensive income includes unrealized gains and losses from exchange rate differences arising from currency translation of foreign subsidiaries as well as the effective portion of the change in the value of derivatives designated as cash flow hedges.

Non-controlling interests

Non-controlling interests in GEA companies amounted to EUR 412 thousand (previous year: EUR 415 thousand).

Capital management

GEA Group Aktiengesellschaft's key financial objective is to sustainably increase its enterprise value in the interests of investors, employees, customers, and suppliers, while safeguarding and securing the group's solvency at all times.

Improving profitability and, as a result, increasing the return on capital employed therefore takes priority in all business decisions. A strict focus on contract margin quality is also derived from this. Equally, external growth through potential acquisitions is viewed from the perspective of this goal.

Capital management, in the form of generating sufficient liquidity reserves, plays a crucial role in the pursuit of these enterprise goals. Not only does this help secure GEA's long-term existence, but it also creates the entrepreneurial flexibility needed to enhance and update current business activities and to take advantage of strategic opportunities. This is achieved by managing liquidity reserves and available credit lines on an ongoing basis using short- and medium-term forecasts of future liquidity trends and borrowing requirements.

The group's financial management encompasses liquidity management, group financing, and the management of interest rate and currency risks. The central financial management operations within GEA Group Aktiengesellschaft are responsible for reducing financing costs as far as possible, optimizing interest rates for financial investments, minimizing counterparty credit risk, leveraging economies of scale, hedging interest rate and exchange rate risk exposures as effectively as possible, and ensuring compliance with loan covenants. The goal of GEA's financing strategy is not only to be able to meet its payment obligations whenever they fall due, but also to ensure that sufficient cash reserves are always available in the form of credit lines, in addition to maintaining a strategic cash position. The centralized liquidity portfolio is managed mainly for capital preservation and risk reduction by diversifying the cash investments.

The capital structure is monitored regularly using various key financial indicators in order to optimize capital costs. Core indicators include the equity ratio and the net debt to equity ratio (gearing). Net debt for the complete group is calculated as follows:

(EUR thousand)	12/31/2023	12/31/2022
Liabilities to banks	-727	-5,167
Borrower's note loan	-101,178	-201,971
Lease liabilities	-154,788	-165,233
Cash and cash equivalents	623,886	718,727
Current securities	4,041	–
Net liquidity (+)/Net debt (-)	**371,234**	**346,356**
Equity	**2,397,721**	**2,280,944**
Equity ratio	**40.3%**	**38.5%**
Gearing	15.5%	15.2%

Net liquidity increased by EUR 24,878 thousand in the course of the fiscal year, closing the year at EUR 371,234 thousand at December 31, 2023.

Two international rating agencies, Moody's and Fitch, again rated GEA Group Aktiengesellschaft's ability to meet its financial obligations. The ratings for GEA are as follows:

	12/31/2023		12/31/2022	
Agency	Rating	Outlook	Rating	Outlook
Moody's	Baa2	positive	Baa2	stable
Fitch	BBB	stable	BBB	stable

GEA's investment grade rating in the "BBB" range enables access to good financing opportunities both with banks and directly on the capital markets. The current ratings reflect GEA's strong solvency and ensure access to the international financial markets.

7.2 Provisions

The following table shows the composition of and changes in provisions in 2023:

(EUR thousand)	Guarantees, warranties	Financial guarantee contracts	Litigation risks	Follow-up costs	Environ-mental protection, mining	Impending Losses	Other provisions	**Provisions**
Balance at 01/01/2023	**97,978**	**2,042**	**13,989**	**62,546**	**82,483**	**2,205**	**74,561**	**335,804**
thereof non-current	11,455	–	1,554	2,211	80,095	–	6,325	**101,640**
thereof current	86,523	2,042	12,435	60,335	2,388	2,205	68,236	**234,164**
Additions	68,769	600	14,514	28,660	7,446	7,280	51,176	**178,445**
Utilization and reclassifications	-26,381	-126	643	-16,283	-2,572	-960	-43,048	**-88,727**
Reversals	-24,498	–	-956	-11,463	-2,381	-522	-7,768	**-47,588**
Changes in consolidated group	-53	–	-31	-17	-22	–	150	**27**
Compounding and change in interest rate	–	–	–	13	8,162	–	3	**8,178**
Exchange differences	-1,751	–	-287	-1,081	-9	-48	-1,849	**-5,025**
Balance at 12/31/2023	**114,064**	**2,516**	**27,872**	**62,375**	**93,107**	**7,955**	**73,225**	**381,114**
thereof non-current	8,849	–	5,791	952	92,566	–	6,709	**114,867**
thereof current	105,215	2,516	22,081	61,423	541	7,955	66,516	**266,247**

Provisions for guarantees and warranties

Provisions for guarantees and warranties relate to warranty commitments for products and equipment. As is customary in the industry, the guarantees and warranties on which they are based are granted in connection with certain performance criteria relating to products or equipment (e.g., guaranteed output volume, quality of product manufactured). Warranties usually have a contractual term of between one and two years from the date on which the products or equipment are accepted. In addition to warranties contractually agreed, product liability rules apply in many countries and may also stipulate that the manufacturer is liable beyond the contractually defined term of the warranty. In some cases, recourse claims exist in the form of insurance refunds or subcontractor guarantees. The level of provisions is based on management's best estimate.

GEA expects to progressively utilize most of the provisions for guarantees and warranties within one year.

Provisions for financial guarantee contracts

Provisions for financial guarantee contracts comprise obligations under indemnification agreements as well as warranties and undertakings relating to the sale of business activities.

Litigation risks

Provisions are recognized for risks arising from expected or pending litigations against GEA companies if it is believed that there is likely to be an unfavorable outcome to the proceedings. Assessments by the company's counsels or legal experts were also used to determine the likelihood of such litigations. The probable obligations related to damages or sanctions have been recognized as provisions. The timing of the cash outflows is based on the best estimates of legal experts.

Follow-up costs

This item comprises the cost of residual work that is incurred after a contract has already been invoiced and the profit from the contract has been recognized. The amount of the expected cost is stated. Payments are made almost in their entirety in the following year.

Environmental protection, mining

This item mainly comprises provisions for the clean-up of pit water from past mining activities and for the clean-up of other instances of groundwater contamination. The obligations are expected to extend well beyond 2050.

The increase in provisions in the fiscal year is also due to changes in interest rates, which, viewed in isolation, increased the obligations by EUR 5,518 thousand. The changes recognized in profit or loss impacted almost exclusively earnings from discontinued operations.

Provisions for impending losses

This item includes both impending losses from pending transactions in connection with point-in-time revenue recognition and impending losses resulting from contracts with customers for which revenue is recognized over time pursuant to IFRS 15. As soon as an impending loss becomes known, its expected amount is reported immediately.

Other provisions

Other provisions comprise provisions for a range of individual items. As of December 31, 2023, other provisions included provisions for restructuring measures within the meaning of IAS 37 for non-personnel expenses of EUR 4.8 million (previous year: EUR 2.6 million).

7.3 Employee benefit obligations

Employee benefit obligations comprise the following items:

(EUR thousand)	Section	12/31/2023	12/31/2022
Obligations under pension plans and supplementary healthcare benefits		598,054	557,691
thereof defined benefit pension plans	7.3.1	588,677	548,010
thereof obligations under supplementary healthcare benefits	7.3.1	9,163	9,463
thereof defined contribution pension plans	7.3.2	214	218
Other employee benefit obligations		2,077	2,240
Partial retirement		12,139	6,028
Jubilee benefits		8,516	8,353
Redundancy plans and severance payments		5,101	17,225
Other non-current obligations to employees		8,746	13,854
Non-current employee benefit obligations		**634,633**	**605,391**
Redundancy plans and severance payments		36,571	18,465
Outstanding vacation, flexitime/overtime credits		64,156	63,172
Bonuses		169,175	187,939
Other current obligations to employees		21,537	23,541
Current employee benefit obligations		**291,439**	**293,117**
Total employee benefit obligations		**926,072**	**898,508**

The increase in non-current employee benefit obligations results mainly from the increase in obligations from defined benefit pension plans, which is in particular due to the decrease in discount rate, and, conversely, a reduction in non-current obligations from social plans and severance payments.

As of December 31, 2023, provisions amounting to EUR 35,835 thousand (previous year: EUR 32,482 thousand) have been recognized for severance payments in connection with restructuring measures within the meaning of IAS 37, of which EUR 30,734 thousand are reported as current employee benefit obligations (previous year: EUR 15,257 thousand). The calculation of the provision is based on findings from comparable restructuring measures in the past.

7.3.1 Obligations under defined benefit pension plans and supplementary healthcare benefits

Wherever possible, defined benefit pension obligations and obligations under supplementary healthcare benefits are disclosed below in the aggregate and explained together.

All obligations were valued by actuaries as of December 31, 2023 and as of December 31, 2022.

Defined benefit plans

GEA employees are offered various benefit options, mainly in the form of defined benefit and defined contribution plans.

Defined benefit plan obligations exist in Germany and, outside of Germany, mainly in the USA and the United Kingdom. In addition, other foreign companies have typical country-specific pension plans that are funded in part by plan assets. Benefits and investments correspond to the country-specific economic environment and requirements.

GEA views the granting of pension benefits as an opportunity to foster employee loyalty and engagement. It is therefore a standard feature of the remuneration concept and has an employee contribution component, where appropriate. In connection with this, GEA monitors developments in the labor market and regularly checks that the benefits it grants are appropriate and in line with the market.

In GEA's assessment, the pension obligations do not give rise to any risks over and above the normal risk level nor beyond the general risks specified.

Pension benefits in Germany

In Germany, GEA grants old-age, disability, and survivors' benefits to many of its employees. New employees are generally only granted benefits that are partly funded by employee contributions.

As part of the general benefits provided, all employees have the opportunity to voluntarily defer parts of their compensation. Under this arrangement, an agreed amount of their salary plus an employer contribution of up to 100 percent of the deferred amount is converted into a pension benefit. A corresponding collective bargaining agreement was entered into in 2002 and revised in 2008. Under this agreement post-retirement benefits are adjusted by one percent each year.

According to GEA's new executive pension scheme, executives are granted benefits in the form of an asset-backed defined benefit plan. The plan assets are managed under a Contractual Trust Arrangement (CTA) and invested in mixed funds. The size of the employer's contributions to the plan assets depends on the amount of the fixed salaries of the beneficiaries. Beneficiaries can also contribute from their own income by means of deferred compensation. The beneficiaries are then entitled to the net earnings generated by the plan assets. There is also a notional premium guarantee.

In addition to the currently open benefit plans, there are a number of historical pension plans in the company. These plans are generally closed to new employees but are maintained unchanged for employees who were members at the time the plan was closed. The plans include obligations under “Bochumer Verband” and “Essener Verband”, as well as obligations established independently by their predecessors. Entitlements also exist from the earlier executive pension scheme, which has been closed to new members since the end of the fiscal year 2014. Post-retirement benefits from the earlier executive pension plan are adjusted by one percent each year.

The pension obligations are partly funded by pension liability insurance policies.

Pension benefits outside Germany
Pension benefits outside Germany mainly exist in the USA and the United Kingdom.

In the USA, there are pension obligations from various pension plans that were closed in succession up to December 31, 2000. No further benefits are earned from a defined benefit plan for periods of service after the respective closure date. Old-age and survivors’ benefits accrued at the closure date of the respective plan were fixed on the basis of pensionable income at the closure date. Benefits may be paid out in the form of annuities or lump-sum payments. Existing pension obligations are partly funded by plan assets. The assets are held separately from the company in an external trust. The companies have appointed independent trustees in accordance with statutory provisions to manage the funding of obligations and the investment of assets according to the company’s specifications. Any funding deficit is identified annually in accordance with legal requirements and may be balanced over a fixed time period if required. The statutory basis for minimum funding was last amended in 2012 by the Moving Ahead for Progress in the 21st Century Act (MAP-21).

In the United Kingdom, there are pension obligations from two UK pension plans, one of which has been closed for a number of years and applies exclusively to former employees. The second plan is closed to new employees but continues to provide old-age and survivors’ benefits to the currently active participants based on pensionable income in the year before the employment relationship ends; these benefits are funded by salary-dependent employee contributions to plan assets. The accrued entitlements and current benefits in the United Kingdom are adjusted in accordance with statutory requirements on the basis of inflation. Pension obligations from both plans are funded by plan assets. The companies appointed independent trustees in accordance with statutory provisions to manage the funding of obligations and the investment of assets according to the company’s specifications. Company pension plans are valued every three years in accordance with legal requirements, and any deficit is identified. If the plan is underfunded, the trustee prepares a funding plan to balance the funding of the deficit, taking into account the actuary’s recommendations and the type and circumstances of the respective plan.

Supplementary healthcare benefits
In addition to occupational pension benefits, certain retired employees are granted health insurance subsidies. New entitlements to health insurance subsidies are no longer granted in Germany. There are now only a few employees with such benefits in active employment. Existing obligations from supplementary healthcare plans are not funded by plan assets. GEA does not see these benefits posing a particular risk due to the low level of the obligations.

Obligations under supplementary healthcare benefits relate mainly to Germany.

Provisions and funded status

The changes in the present value of the defined benefit obligation, the plan assets, and the provisions were as follows:

	12/31/2023		12/31/2022	
(EUR thousand)	Germany	Other countries	Germany	Other countries
Present value of defined benefit obligation at beginning of fiscal year	**572,452**	**111,126**	**794,126**	**143,805**
Current service cost	12,573	2,381	16,797	2,648
Interest Cost from discounting unwinding on obligations	21,055	4,898	8,546	2,978
Employee contributions	–	440	–	405
Remeasurement of present value of obligation	45,820	4,359	-215,387	-31,655
Actuarial gains/ losses from changes in demographic assumptions	–	-634	–	-153
Actuarial gains/ losses resulting from changes in financial assumptions	40,637	3,806	-230,343	-34,414
Actuarial gains/ losses resulting from experience adjustments	5,183	1,187	14,956	2,912
Past service cost	–	-599	544	–
Payments without settlements	-33,428	-8,544	-33,059	-9,047
Transfer of assets	–	-543	-115	–
Changes in combined group due to acquisitions/ divestments	–	–	–	-1,337
Other changes in combined group	8,039	–	1,000	–
Currency translation	–	-1,258	–	3,329
Present value of defined benefit obligation at end of fiscal year	**626,511**	**112,260**	**572,452**	**111,126**
Fair value of plan assets at beginning of the fiscal year	**52,630**	**84,240**	**55,093**	**97,676**
Interest income on plan assets	2,075	3,784	621	2,068
Employer contributions	7,737	3,448	6,965	4,757
Employee contributions	–	440	–	405
Remeasurement: return from plan assets in excess/ shortage of interest income	2,442	1,978	-6,403	-15,179
Payments without settlements	-2,526	-7,731	-3,646	-7,150
Other changes in combined group	1,464	–	–	–
Currency translation	–	-684	–	1,663
Fair value of plan assets at the end of fiscal year	**63,822**	**85,475**	**52,630**	**84,240**
Effect of asset ceiling at beginning of fiscal year	**–**	**6,075**	**–**	**–**
Changes in asset ceiling	–	-1,880	–	6,309
Currency translation	–	112	–	-234
Effect of asset ceiling at the end of fiscal year*	**–**	**4,307**	**–**	**6,075**
Net carrying amount	**562,689**	**31,092**	**519,822**	**32,961**
thereof net asset	87	3,968	124	4,566
thereof net liability	562,776	35,060	519,946	37,527

*) Including EUR 331 thousand (previous year EUR 3,220 thousand) effect from minimum funding requirement of a plan in the United Kingdom.

Changes to the net carrying amount of the defined benefit obligations from defined benefit plans and supplementary healthcare benefits for fiscal years 2023 and 2022 are as follows:

	12/31/2023		12/31/2022	
(EUR thousand)	Germany	Other countries	Germany	Other countries
Net carrying amount at beginning of fiscal year	**519,822**	**32,961**	**739,033**	**46,129**
Changes through profit or loss	**31,553**	**3,196**	**25,266**	**3,558**
Current service cost	12,573	2,381	16,797	2,648
Past service cost	–	-599	544	–
Net interest on net defined benefit liability	18,980	1,414	7,925	910
Changes through OCI	**43,378**	**201**	**-208,984**	**-10,167**
Return from plan assets in excess interest income	-2,442	-1,978	6,403	15,179
Actuarial gains/ losses from changes in demographic assumptions	–	-634	–	-153
Actuarial gains/ losses resulting from changes in financial assumptions	40,637	3,806	-230,343	-34,414
Actuarial gains/ losses resulting from experience adjustments	5,183	1,187	14,956	2,912
Effect of asset ceiling/ minimum funding requirement	–	-2,180	–	6,309
Cash-effective changes	**-38,639**	**-4,261**	**-36,378**	**-6,654**
Employer contributions	-7,737	-3,448	-6,965	-4,757
Payments without settlements	-30,902	-813	-29,413	-1,897
Other changes	**6,575**	**-1,005**	**885**	**95**
Transfer of assets	–	-543	-115	–
Changes in combined group due to acquisitions	–	–	–	-1,337
Other changes in combined group	6,575	–	1,000	–
Currency translation	–	-462	–	1,432
Funded status/ Net carrying amount	**562,689**	**31,092**	**519,822**	**32,961**

As in the previous year, there are no reimbursement claims within the meaning of IAS 19.116. One pension plan in the United Kingdom and one in Canada are in a surplus, which are not recognized because no future economic benefits in the form of reductions in future contributions or refunds from the plan are available to GEA. Due to the minimum funding requirement of the plan in the United Kingdom, an additional liability is recognized in accordance with IFRIC 14.24.

The following overview shows the net carrying amount broken down into plans with and without plan assets:

	12/31/2023		12/31/2022	
(EUR thousand)	Germany	Other countries	Germany	Other countries
Present value of funded obligations	253,178	98,402	225,817	98,446
Fair value of plan assets	63,822	85,475	52,630	84,240
Funded status/ Net carrying amount of funded obligations	**189,356**	**12,927**	**173,187**	**14,206**
Present value of unfunded obligations	373,333	13,858	346,635	12,680
Funded status/ Net carrying amount of unfunded obligations	**373,333**	**13,858**	**346,635**	**12,680**
Funded status/ Net carrying amount (before asset ceiling)	**562,689**	**26,785**	**519,822**	**26,886**

The following overview shows the present value of the defined benefit obligation broken down into active employees, former employees with terminated vested benefits, and benefit recipients:

	12/31/2023		12/31/2022	
(EUR thousand)	Germany	Other countries	Germany	Other countries
Active employees	186,294	42,112	162,402	41,841
Vested terminated employees	97,281	17,831	83,013	17,609
Pensioners	342,936	52,317	327,037	51,676
Total	**626,511**	**112,260**	**572,452**	**111,126**

Plan assets

The plan assets used to cover the pension obligations were as follows at the respective reporting dates:

	12/31/2023		12/31/2022	
(Percent)	Germany	Other countries	Germany	Other countries
Quoted prices in active marktes	74.2	91.4	68.7	92.0
Equity instruments	–	26.7	–	34.9
Debt instruments	74.2	57.9	68.7	51.3
Real estate	–	2.3	–	1.8
Insurance	–	–	–	0.5
Other	–	4.5	–	3.5
No quoted prices in active marktes	25.8	8.6	31.3	8.0
Equity instruments	–	1.3	–	1.3
Debt instruments	–	0.8	–	0.8
Real estate	–	0.1	–	0.1
Insurance	25.4	5.6	30.7	5.5
Other	0.4	0.7	0.6	0.3
Total	**100.0**	**100.0**	**100.0**	**100.0**

Particularly in Germany, GEA has decided to utilize the internal financing effect of the pension provisions and supplementary healthcare benefits and only fund a relatively small proportion of the pension obligations using plan assets.

In the USA and the United Kingdom, a large proportion of the pension obligations is funded by plan assets in accordance with the legal frameworks. The above table shows how the plan assets have been invested. A proportion of both the German and foreign plan assets is managed by insurance companies in accordance with their specific investment guidelines. In Germany, this is one of the predominant forms for the investment of plan assets. A large portion of plan assets in Germany are also managed under a Contractual Trust Arrangement (CTA) and are invested in mixed funds. Part of the plan assets of German pension plans is also managed by pension funds and an endowment fund and is mainly invested in fixed-income securities and term deposits, with only a relatively small proportion invested in equities. The objective of these external investments is to ensure secure returns and to preserve the value of the underlying assets in order to fund current and future pension benefits. There are currently no plans to change this investment strategy.

Assets invested in the capital markets are exposed to general capital market and investment risks. GEA continually monitors market trends and has developed appropriate investment policies that adequately balance risk and income expectations, while taking the respective statutory and regulatory frameworks into account.

In fiscal year 2024, EUR 7,566 thousand are expected to be added to the plan assets of German pension plans and EUR 4,048 thousand to plans outside Germany.

The actual return on plan assets in 2023 was EUR 10,280 thousand (previous year: expense EUR -18,893 thousand).

Actuarial assumptions

As of the respective reporting date, the following weighted actuarial assumptions were used to calculate the present value of the defined benefit obligations. These assumptions are used to calculate net pension expenses in the following year.

	12/31/2023		12/31/2022	
(Percent)	Germany	Other countries	Germany	Other countries
Discount factor	3.20	4.30	3.80	4.69
Inflation	2.20	1.09	2.20	0.99
derived: wage and salary growth rate	3.20	1.15	3.20	1.26
derived: pension growth rate	2.10	–	2.20	–
derived: growth rate in cost of health care benefits	3.95	7.63	3.95	7.12

The actuarial measurement factors for German plans are established by GEA in consultation with actuarial experts. The corresponding assumptions for plans outside Germany are determined taking into account country-specific conditions with the help of local experts in consultation with the global experts and GEA. The discount rate is set using a recognized method based on the return on high-quality corporate bonds determined as of the reporting date, taking into account the currency and maturities of the underlying liabilities. For countries that do not have a liquid market in corporate bonds that are suitable for setting the discount rate, interest rates on government bonds are referred to instead in order to define the rate.

All other assumptions correspond to GEA's long-term projections. The nominal rate of wage and salary increases is calculated based on expected inflation and a real growth rate. The rate of pension benefit increases in Germany is also determined based on inflation, provided the pension benefit adjustments are determined in accordance with the rise in the cost of living. In addition, the financial position of the relevant company is also taken into account. If a firm pension adjustment commitment has been made, this is taken into account accordingly. Outside of Germany, the pension adjustment is also generally determined on the basis of inflation. The growth rate assumed for the cost of supplementary healthcare benefits in Germany equates to the forecast inflation rate plus a growth rate based on historical data. Based on this data, the growth rate is not expected to change in the future.

2018 G mortality tables of Heubeck Richttafeln GmbH were used as a basis for measuring all German plans as of December 31, 2023. On this basis, the life expectancy of a 65-year-old pensioner as of the reporting date is 20.94 years for men and 24.31 years for women (previous year: 20.80 years / 24.20 years respectively). Country-specific measurement bases were used for pension liabilities outside Germany.

The sensitivities presented below apply to the discount rate and inflation, which have been identified as actuarial assumptions that have a significant influence on GEA's benefit obligations. Since the wage and salary increase rate, the pension increase rate and the growth rate in the cost of supplementary health benefits are derived from inflation, sensitivity to inflation was used to measure the sensitivity of these assumptions together. The same calculation methods were used for sensitivities as for the recognized provisions. The ranges used to compute the sensitivities of the assumptions are based on the changes that are deemed possible until the next reporting date, given historical experience. The meaningfulness of historical experience for forecasts of future outcomes and neglecting to update a number of assumptions simultaneously may represent limitations of these methods.

(EUR thousand)	12/31/2023	
Increase (+)/ Decrease (-) of DBO	Germany	Other countries
Increase of discount factor by 50 basis points	-34,265	-5,245
Decrease of inflation by 25 basis points	-10,085	-839

A one-year increase in life expectancy results in an increase of around 3.57 percent in the present value of the defined benefit obligations, on average.

Future cash flows

The following benefit payments are expected to be made under the German and foreign plans in the coming years:

(EUR thousand)	2024	2025	2026	2027	2028	2029 - 2033
German plans	37,700	37,702	35,990	41,007	36,762	180,344
Foreign plans	9,339	7,512	8,513	7,702	7,901	41,555

The average weighted duration of pension obligations and supplementary healthcare benefits is:

	12/31/2023		12/31/2022	
(Years)	Germany	Other countries	Germany	Other countries
Duration	11.8	10.3	11.8	10.3

7.3.2 Defined contribution plans

Various group companies – especially in the USA and Scandinavia – operate defined contribution plans. Under these plans, the obligation does not lie with GEA but with the respective pension funds. Contributions totaling EUR 26,244 thousand were made in fiscal year 2023 (previous year: EUR 23,896 thousand). Contributions of EUR 74,829 thousand were made to state pension insurance systems (previous year: EUR 70,614 thousand). These contributions are recognized as personnel expenses at the same time as the relevant service is rendered.

Two nationwide, joint pension plans operated by several employers in the Netherlands were recognized as defined contribution plans since the employers' obligation is limited to the payment of contributions, as set out in the terms and conditions of the pension plans. The employers are neither liable for any underfunding nor do they participate in any plan overfunding.

The terms and conditions of both plans require a minimum funding level to be maintained. If this level is not met, a stabilization plan must be submitted to the Dutch Central Bank. Neither a surplus nor a deficit would result in additional payments from or into the plan for the participating companies. However, if the minimum funding level is not met, pension benefits may be reduced or future contributions payable by the participating companies may be increased.

One of the mutual pension plans has around 613,000 beneficiaries, of whom around 500 belong to GEA. Contributions amounting to EUR 4,603 thousand (previous year: EUR 4,489 thousand) were made to this multi-employer pension plan in fiscal year 2023.

The other joint pension plan has around 1.3 million beneficiaries, of whom around 500 belong to GEA. Contributions amounting to EUR 4,372 thousand (previous year: EUR 3,925 thousand) were made to this plan in fiscal year 2023.

7.3.3 Share-based payment

Share-based payments in fiscal year 2023 for the group as a whole totaled EUR 2,264 thousand (previous year: EUR 3,295 thousand). The carrying amount of liabilities arising from share-based payment transactions in the group as a whole amounted to EUR 8,484 thousand as of December 31, 2023 (previous year: EUR 13,876 thousand).

Performance Share Plan

With effect from January 1, 2019, as part of its new remuneration system, GEA launched a tranche with the name "Performance Share Plan" for members of the Executive Board who had signed up for the plan. This is a cash-settled share-based payment plan whereby members of the Executive Board are granted a certain number of phantom shares on a preliminary basis.

During fiscal years 2020 and 2021, a tranche of the performance share plan with a three-year performance period was granted each year. The Performance Shares are paid out once the three-year performance period has expired. Under this program, the Total Shareholder Return (TSR) of GEA Group Aktiengesellschaft relative to the benchmark index (STOXX® Europe TMI Industrial Engineering), together with growth in EPS (earnings per share), adjusted for effects of restructuring expenses and acquisitions and divestments, determine how many Performance Shares are ultimately rewarded. Starting from fiscal year 2022, the Executive Board is awarded annual tranches with a four-year performance period. At the end of the four-year performance period, the payout is calculated as the arithmetic mean of the annual target achievement of the strategic targets and the TSR of GEA Group Aktiengesellschaft shares relative to the benchmark (DAX 50 ESG).

To calculate the relative TSR performance, the TSR performance of all peer companies is ranked, whereupon the relative position of GEA Group Aktiengesellschaft is determined by referring to its ranking within this peer group. Once the performance of GEA Group Aktiengesellschaft's shares reaches the median in the TSR comparison, 100 percent of the Performance Shares are rewarded; if it reaches the lower quartile or below, target achievement is 0 percent. If the relative TSR performance of GEA Group Aktiengesellschaft's shares is at the third quartile, 200 percent of the Performance Shares are issued. Other performance figures are interpolated between these values.

The total amount paid out corresponds to the final number of Performance Shares rewarded to a participant multiplied by the average share price over the last quarter of the three-year performance period, taking into account dividends paid out. The amount paid out is limited to 200 percent of the issued amount (cap).

Since the start of issuance, 104,706 Performance Shares have been granted on a preliminary basis for the 2021 tranche, 61,226 for the 2022 tranche and 90,122 for the 2023 tranche. The number of shares will remain constant over the performance period until the final issuance of Performance Shares. In some cases, the payout for the Performance Shares awarded is reduced pro rata temporis.

Taking into account the fair value as of December 31, 2023 of EUR 7,125 thousand (previous year: EUR 11,751 thousand) for the 2021, 2022 and 2023 tranches, calculated using a Monte Carlo simulation, the group as a whole incurred an expense of EUR 1,738 thousand in fiscal year 2023 (previous year: EUR 2,759 thousand).

Global Incentive Plan

From 1 January 2020, a long-term remuneration program for members of the "Global Executive Committee", which includes the heads of the divisions and sales regions, the head of Human Resources and the head of Sustainability, was set up under the name "Global Incentive Program" for the years 2020 to 2022. With effect from 1 January 2023, another long-term remuneration program was set up for the members of the "Global Executive Committee" for the years 2023 to 2026 under the name "GEC Mission 26 Incentive Plan". Both programmes are cash-settled share-based payment programmes.

Under the "Global Incentive Program", a tranche with a three-year performance period is granted annually. Under the program, participants are awarded Performance Share Units equal to a virtual initial amount at the beginning of the performance period. The prerequisite for participation in the program is a personal investment in shares of GEA Group Aktiengesellschaft, which must be held continuously over the performance period. The Performance Share Units are paid out at the end of the three-year performance period. The payout is calculated as the virtual initial amount multiplied by the performance factor, which is calculated as the quotient of the respective average daily closing price of the ordinary shares of GEA Group Aktiengesellschaft in the last quarter of the last calendar year of the respective performance period ("final price") and the first quarter of the first calendar year of the respective performance period ("starting price"). The payout amount is limited to 300 per cent of the virtual starting amount. Payment is only made if the final price is higher than the starting price.

Under the "GEC Mission 26 Incentive Plan", an annual tranche with a performance period of four years is granted. At the beginning of the performance period, participants receive an allocation of Performance Share Units equal to a virtual initial amount. The prerequisite for participation is a personal investment by the plan participant in shares of GEA Group Aktiengesellschaft, which must be held continuously over the performance period. The Performance Share Units are paid out at the end of the four-year performance period. The amount paid out is based on the target achievement of the strategic targets set by the Executive Board at the beginning of the performance period of a tranche, multiplied by the number of Performance Share Units allocated and the average daily closing price of GEA Group Aktiengesellschaft ordinary shares in the last quarter of the last financial year of the respective performance period. The payout is limited to 200 percent of the virtual initial amount.

The number of Performance Share Units at the grant date amounted to 32,770 for the 2021 tranche, 24,549 for the 2022 tranche and 21,419 for the 2023 tranche.

The vesting period of the Global Incentive Program is the full three-year or four-year performance period. The fair value is determined by means of a Monte Carlo simulation. The fair value of the claims under the Global Incentive Program amounted to EUR 1,360 thousand as of December 31, 2023 (previous year: EUR 2,125 thousand). The Global Incentive Program resulted in an expense of EUR 526 thousand (previous year: EUR 535 thousand) for the group as a whole in fiscal year 2023.

7.4 Other financial liabilities

Other financial liabilities as of December 31, 2023, comprises the following items:

(EUR thousand)	12/31/2023	12/31/2022
Borrower's note loan	99,964	99,935
Liabilities to banks	–	131
Lease liabilities	95,884	106,749
Liabilities to employees and officers	91	2
Liabilities from derivatives	223	306
Miscellaneous other financial liabilities	9,105	9,775
Other noncurrent financial liabilities	**205,267**	**216,898**
Borrower's note loan	1,214	102,036
Liabilities to banks	727	5,036
Lease liabilities	58,904	58,484
Liabilities to subsidiaries and investment companies	11,995	21,439
Liabilities to employees and officers	17,054	17,369
Liabilities from derivatives	2,215	11,541
Miscellaneous other financial liabilities	43,638	44,393
Other current financial liabilities	**135,747**	**260,298**
Total other financial liabilities	**341,014**	**477,196**

The financing of GEA as of December 31, 2023 mainly consists of the following items:

(EUR thousand)	Carrying amount 12/31/2023	Carrying amount 12/31/2022	Notional value 12/31/2023	Fair value 12/31/2023	Interest basis	Maturity
Borrower's note loan - tranche I	–	100,822	–	–	fix	February 26, 2023
Borrower's note loan - tranche II	101,178	101,149	100,000	98,187	fix	February 26, 2025
Borrower's note loan - tranche III	–	–	–	–	variable	February 26, 2023, premature repayment on February 28, 2022
Borrower's note loan - tranche IV	–	–	–	–	variable	February 26, 2023, premature repayment on February 28, 2022
Bilateral credit lines	727	5,167	–	–	fix / variable	until further notice

Borrower's note loan

In February 2018, GEA Group Aktiengesellschaft issued a borrower's note loan with a volume of EUR 250,000 thousand. The borrower's note loan comprises four separate tranches with maturities of five and seven years, each divided into a fixed and a variable-interest part. The borrower's note loan was placed with institutional investors both at home and abroad. GEA repaid tranches III and IV early on February 28, 2022. The borrower's note loan totaling EUR 201.971 thousand as of December 31, 2022 went down to EUR 101.178 thousand as of December 31, 2023, due to the repayment of the fix interest tranche I amounting to EUR 100 million.

Liabilities to Banks

Transaction costs for unused credit lines as of the end of the year are allocated on a straight-line basis over the term.

Liabilities to banks totaling EUR 199 thousand (previous year: EUR 432 thousand) were secured as of December 31, 2023.

Cash credit lines, guarantee credit lines and derivative financial instruments

Disclosure related to Cash credit lines, guarantee credit lines and derivative financial instruments may be found in section 3 of the Notes to the Consolidated Financial Statements.

Miscellaneous other financial liabilities

As of the current reporting date and the previous year, no miscellaneous other financial liabilities were secured.

7.5 Trade payables

Trade payables were as follows as of December 31, 2023:

(EUR thousand)	12/31/2023	12/31/2022
Trade payables to third parties	761,834	785,246
thereof from supply chain financing arrangements	18,742	19,841
Trade payables to affiliated companies	7,202	6,531
Total	**769,036**	**791,777**

Trade payables of EUR 769,036 thousand (previous year: EUR 791,777 thousand) are due within one year.

As of the current reporting date and the previous year, no trade payables were secured.

7.6 Other liabilities

Other liabilities as at December 31, 2023, comprised the following items:

(EUR thousand)	12/31/2023	12/31/2022
Other noncurrent liabilities	**685**	**773**
Other liabilities from tax	72,782	79,312
Liabilities relating to social security	16,703	14,613
Deferred income	6,807	3,044
Other remaining liabilities	–	2
Other current liabilities	**96,292**	**96,971**
Total other liabilities	**96,977**	**97,744**

8. Consolidated Income Statement Disclosures

8.1 Revenue

Revenue is composed of the following items:

(EUR thousand)	01.01.2023 - 31.12.2023	01.01.2022 - 31.12.2022
From construction contracts	2,220,458	2,233,328
From components business	1,210,829	1,130,276
From service agreements	1,942,204	1,801,110
Total	**5,373,491**	**5,164,714**

Disaggregation of revenue

GEA disaggregates its revenues from contracts with customers according to revenue type as well as geographical region. The disaggregation of the revenue corresponds with the presentation in segment reporting (see section 10.1).

Account balances

The table below provides information on trade receivables, contract assets and contract liabilities arising from contracts with customers.

(EUR thousand)	12/31/2023	12/31/2022
Trade receivables	770,888	730,945
Trade receivables included in assets held for sale	–	2,554
Contract assets	373,960	373,162
Contract liabilities	870,300	844,508

Trade receivables are unconditional claims for payment asserted by the group in respect of services rendered and invoiced. Trade receivables do not generally have an interest component and are generally due within 30 days.

(EUR thousand)	12/31/2023	12/31/2022
Gross profit from construction contracts less impairment	4,018,458	3,864,035
less progress billings, advance payments received and invoiced on construction contracts	-4,174,273	-3,997,097
Reclassification credit balance	529,775	506,224
Total contract assets	**373,960**	**373,162**

*) Gross profit from construction contracts results from capitalized production cost plus net gain from construction contracts

Contract assets relate to the group's entitlement to consideration in respect of performance arising from construction contracts that had not been invoiced as of the reporting date. Amounts recognized as contract assets are reclassified to trade receivables as soon as the group obtains an unconditional right to payment.

(EUR thousand)	12/31/2023	12/31/2022
Advance payments received and requested for orders	5,608	4,942
Non-current contract liabilities	**5,608**	**4,942**
Advance payments received and requested for orders	334,536	333,342
Gross amount due to customers for contract work	530,156	506,224
Current contract liabilities	**864,692**	**839,566**
Total contract liabilities	**870,300**	**844,508**

Contract liabilities are essentially advance payments from customers for the construction of customer-specific plant and equipment for which revenues are realized over time.

Bank guarantees amounting to EUR 242,885 thousand (previous year: EUR 287,868 thousand) have been issued as collateral for advance payments received on orders.

The following material changes occurred with regard to contract assets in the reporting period:

(EUR thousand)	01/01/2023-12/31/2023	01/01/2022-12/31/2022
Transfer from contract assets recognized at the beginning of the period to trade receivables	-367,581	-339,171
Due to contract modifications*	-3,544	2,126
Due to deconsolidation of subsidiaries	–	-7,940
Due to reversal of impairment and impairment	5,255	714

*) Include effects from sanction-related contract terminations as a result of the Russia-Ukraine war amounting to EUR -3,854 thousand

In the current reporting period, impairment losses on contract assets amounting to EUR 3,599 thousand (previous year: EUR 1,163 thousand) were reversed.

During the year under review, the following changes had a material effect on contract liabilities:

(EUR thousand)	01/01/2023-12/31/2023	01/01/2022-12/31/2022
Revenue recognized that was included in contract liability balance at the beginning of the period	-688,517	-693,936
Due to deconsolidation of subsidiaries	–	-8,564

In fiscal year 2023, revenues in connection with performance obligations satisfied either fully or in part in earlier reporting periods amounted to EUR 1,614 thousand (previous year: EUR 3,140 thousand). This was due to contract modifications.

Contract assets comprise performances in the amount of EUR 7,003 thousand (previous year: EUR 13,775 thousand), for which the invoicing is delayed as of December 31, 2023.

The following revenue expectations for subsequent periods are connected with existing performance obligations from contracts with customers that had either not been processed at all or only in part as of December 31, 2023:

(EUR thousand)	12/31/2023	12/31/2022
Revenue recognition < 1 year	2,796,189	2,948,577
Revenue recognition > 1 year	320,363	244,129
Total	**3,116,552**	**3,192,706**

Performance obligations

The group's revenues are based on the performance obligations summarized below:

Construction contracts

GEA manufactures customized turnkey production lines and engineering components for the food processing industry and a wide range of other processing industries for integration in production processes on the customer's premises. Performance obligations arising from construction contracts are satisfied over the duration of the contract in accordance with the stage of completion, and the underlying revenues are recognized over time.

As a rule, an order is commenced upon receipt of an initial advance payment by the customer. Thereafter, work is billed according to the contractual agreements, with such progress billings usually payable within 30 days. Advance payments received are recognized as contract liabilities if they are not matched by a corresponding performance. Performances that have not been invoiced are recognized as contract assets. If a customer cancels a contract, the group is entitled to reimbursement of the costs incurred until such time, plus an appropriate margin.

The duration of the order depends on the size of the plant or equipment and the complexity of the design. Application areas vary from industry to industry, and although construction contracts can run over several months, the time to completion is rarely more than twelve months. In the project business, which comprises the development and construction of process solutions, the time taken to complete plant and equipment is typically more than twelve months.

Obligations arising from guarantees and warranty commitments are reflected in the provisions and do not usually constitute distinct performance obligations (see section 7.2 of the Notes to the Consolidated Financial Statements for further information).

Components business

The group's components business comprises the sale of both standardized and modularized equipment for a large number of process industries. Depending on the terms of delivery, customers usually gain control over the individual machines and components when they receive delivery and accept the items at the point of destination, or earlier if the goods are transferred to a shipping agent.

It is at this point that invoices are generated and revenues realized. The invoices are usually payable within 30 days. In the components business, discounts are granted that are deducted from the consideration payable.

Obligations arising from guarantees and warranty commitments are reflected in the provisions and do not usually constitute distinct performance obligations (see section 7.2 of the Notes to the Consolidated Financial Statements for further information).

Services

The group's service portfolio comprises services spanning the entire life cycle of customer plant and equipment, including the sale of spare parts. Performance obligations such as assembly, commissioning, maintenance, and plant modernization are satisfied in line with the performance completed to date.

Such work is usually invoiced upon completion of the respective service and acceptance by the customer, with payment due within 30 days. In the service business, discounts granted are deducted from the consideration payable.

Obligations arising from guarantees and warranty commitments are reflected in the provisions and do not usually constitute distinct performance obligations (see section 7.2 of the Notes to the Consolidated Financial Statements for further information).

8.2 Other income

Other income is composed of the following items:

(EUR thousand)	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Exchange rate gains	363,560	438,249
Gains on the measurement of foreign currency derivatives	83,097	132,633
Rental and lease income	907	202
Income from disposal of non-current assets	3,617	3,750
Income from compensation payments and cost reimbursements	917	2,503
Miscellaneous other income	28,963	37,705
Total	**481,061**	**615,042**

8.3 Other expenses

Other expenses are composed of the following items:

(EUR thousand)	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Exchange rate losses	360,580	449,989
Losses on the measurement of foreign currency derivatives	86,613	128,822
Goodwill impairment	–	1,698
Expenses on the disposal of consolidated subsidiaries	743	1,133
Losses on the disposal of non-current assets	5,374	311
Cost of money transfers and payment transactions	1,599	1,097
Miscellaneous other expenses*	14,254	12,824
Total	**469,163**	**595,874**

*) Include expenses for legal disputes

The expenses recognized in the reporting year from the disposal of consolidated companies are related to a final purchase price adjustment and an impairment of a contingent consideration arising from the 2021 sale of the refrigeration contracting and service operations in Spain and Italy.

Losses on the disposal of non-current assets include a deconsolidation loss of EUR 3,539 thousand related to the sale of GEA's milling systems business in Italy.

In the previous year, the goodwill impairment due to the classification as "held for sale" related to the portion of goodwill of the Heating & Refrigeration Technologies division allocated to the transport cooling business in South Africa. For further information, please see section 6.2 of the Notes to the Consolidated Financial Statements.

Foreign exchange gains and losses include amounts disclosed in local financial statements related to the conversion of intragroup receivables and liabilities in foreign currencies. The majority of these intragroup transactions are performed by means of cash pooling and are used for operating activities.

8.4 Presentation of selected income and expenses by cost type

Cost of materials

The cost of materials decreased by EUR 79,930 thousand in the reporting period to EUR 2,251,648 thousand (previous year: EUR 2,331,578 thousand). The cost of materials was 42.4 percent of gross revenue* and was therefore lower than the previous year's figure of 44.6 percent.

Personnel expenses

Personnel expenses increased by EUR 47,049 thousand in 2023 to EUR 1,669,170 thousand (previous year: EUR 1,622,121 thousand). The cost of unwinding the discount on expected pension obligations is not recognized under personnel expenses, but under financial and interest expenses. Personnel expenses include wages and salaries in the amount of EUR 1,386,367 thousand (previous year: EUR 1,343,031 thousand) as well as social security contributions and expenses for post-employment benefits of EUR 282,833 thousand (previous year: EUR 279,117 thousand). In the reporting year, personnel expenses included EUR 13,191 thousand (previous year: EUR 13,983 thousand) related to changes in employee benefit obligations, which were deferred in accordance with IAS 37 for restructuring measures. The ratio of personnel expenses to gross revenue* increased to 31.5 percent (previous year: 31.1 percent).

Depreciation, amortization and impairment losses

Depreciation and amortization totaling EUR 181,909 thousand (previous year: EUR 180,231 thousand) were charged on property, plant and equipment, investment property and intangible assets in the reporting period. Impairment losses totaling EUR 8,116 thousand (previous year: EUR 8,459 thousand) were charged on property, plant and equipment and intangible assets.

Impairments on non-derivative financial assets excluding trade receivables amounted to EUR 6,326 thousand in the reporting period (previous year: EUR 5,440 thousand). Of this amount, EUR 4,254 thousand (previous year: EUR 2,672 thousand) was attributable to non-current financial assets. Impairment losses on equity investments and marketable securities are contained in the financial expenses items. Inventories were adjusted in the amount of EUR 31,117 thousand (previous year: EUR 11,539 thousand). These impairment losses and the remaining impairment losses were recognized in cost of sales.

*) Gross revenue consists of sales, variations in finished goods and work in process as well as other own work capitalized.

8.5 Financial and interest income

Other financial income

Financial income comprises the following items:

(EUR thousand)	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Income from at-equity investments	2,147	1,473
Income from other equity investments	24	5,057
thereof from unconsolidated subsidiaries	–	5,033
Gain on net monetary positions (hyperinflation)	13,440	1,193
Total	**15,611**	**7,723**

Income from at-equity investments relates to income from joint ventures.

Due to high inflation, business activity in Argentina and Turkey is no longer accounted for on a historical cost basis but adjusted for the effects of inflation. Non-monetary assets and liabilities and items on the income statement are adjusted using the consumer price index published by the International Monetary Fund (IMF). As of the reporting date, the applicable index value in Argentina was 3,533.2 (December 31, 2022: 1,134.6). As of the reporting date, the applicable index value in Turkey was 1,859.4 (December 31, 2022: 1,128.5). Gain on net monetary positions went up by EUR 12,247 thousand to EUR 13,440 thousand, primarily due to the significant rise in consumer prices in Argentina and the excess of assets over liabilities.

Interest income

Interest and similar income comprises the following items:

(EUR thousand)	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Interest income on receivables, cash investments, and marketable securities	11,916	6,295
thereof to affiliated companies	451	242
Interest income from other employee benefit obligations	1,185	342
Interest income from changes in interest rates other provisions	–	106
Other interest income	3,871	3,797
Total	**16,972**	**10,540**

The following table shows the interest income on financial instruments broken down by IFRS 9 measurement categories, along with the interest income on assets measured in accordance with other requirements:

(EUR thousand)	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Financial assets measured at amortized cost	11,916	6,295
Financial assets not measured in accordance with IFRS 9	5,056	4,245
Total	**16,972**	**10,540**

8.6 Financial and interest expenses

Other financial expenses

Financial expenses comprise the following items:

(EUR thousand)	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Impairment losses on equity investments in unconsolidated subsidiaries	81	2,672
Impairment losses on financial assets	1,991	2,768
Losses transferred under profit and loss transfer agreements	281	1,703
Expenses from measurement at fair value	4,173	1,659
Losses on net monetary positions (hyperinflation)	–	949
Total	**6,526**	**9,751**

Additional information regarding accounting due to hyperinflation is provided in section 8.5 of the Notes to the Consolidated Financial Statements.

Interest expense

Interest and similar expenses comprise the following items:

(EUR thousand)	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Interest expenses on liabilities to banks	3,548	5,373
Interest expenses on lease liability	5,809	4,292
Interest cost from discount unwinding on pension and medical care obligations	20,607	8,870
Interest cost from discount unwinding on discounted provisions and other employee benefit obligations	552	544
Other interest expenses	7,552	5,723
thereof to affiliated companies	921	252
Total	**38,068**	**24,802**

The following table shows the interest expenses on financial instruments broken down by the IFRS 9 measurement categories, along with the interest expenses on liabilities measured in accordance with other requirements:

(EUR thousand)	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Financial liabilities at amortized cost	10,051	10,453
Financial liabilities not measured in accordance with IFRS 9	28,017	14,349
Total	**38,068**	**24,802**

If a source of financing can be allocated to a specific investment, the actual borrowing costs are capitalized as part of the cost of the investment. No material borrowing costs were capitalized in fiscal year 2023 or in the previous year.

In fiscal year 2023, expenses totaling EUR 1,599 thousand (previous year: EUR 1,097 thousand) were incurred for fees that were not included in the calculation of the effective interest rate.

8.7 Income taxes

Income taxes for continuing operations comprise the following items:

(EUR thousand)	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Current taxes	114,879	104,926
Deferred taxes	-20,867	-33,253
Total	**94,012**	**71,673**

The expected tax expense is calculated using the tax rate of 30.40 percent (previous year: 30.00 percent) applicable to German group companies. This includes the uniform corporate income tax rate (including solidarity surcharge) of 15.825 percent (previous year: 15.825 percent) and an additional average trade tax rate of 14.575 percent (previous year: 14.175 percent). The following table shows a reconciliation of the expected tax rate to the effective tax rate of 18.85 percent (previous year: 16.04 percent):

	01/01/2023 - 12/31/2023		01/01/2022 - 12/31/2022	
	(EUR thousand)	(%)	(EUR thousand)	(%)
Profit before tax	**498,608**		**446,715**	
Expected tax expense	151,577	30.40	134,015	30.00
Non-tax-deductible expense	21,759	4.36	19,373	4.34
Tax-exempt income	-8,265	-1.66	-12,132	-2.72
Change in valuation allowances	-57,585	-11.55	-55,353	-12.39
Change in tax rates	-818	-0.16	-236	-0.05
Foreign tax rate differences	-25,034	-5.02	-17,727	-3.97
Taxes relating to other periods	-7	0.00	-1,337	-0.30
Other	12,385	2.48	5,071	1.13
Income tax and effective tax rate	**94,012**	**18.85**	**71,673**	**16.04**

The “non-tax-deductible expense” of EUR 21,759 thousand (previous year: EUR 19,373 thousand) includes an amount of EUR 3,192 thousand related to non-deductible interest expenses in the income tax group of GEA Group Aktiengesellschaft. The remaining amount (EUR 18,567 thousand) is based on a large number of individual items and is mainly attributable to Germany (EUR 9,664 thousand; previous year: EUR 7,207 thousand), Denmark (EUR 1,155 thousand; previous year: EUR 1,990 thousand), Italy (EUR 1,151 thousand; previous year: EUR 605 thousand) and the USA (EUR 1,075 thousand; previous year: EUR 1,489 thousand).

The “change in valuation allowances” of EUR -57,585 thousand (previous year: EUR -55,353 thousand) is mainly attributable to a reassessment of the recoverable amount of deferred tax assets on tax loss carryforwards (EUR -67,374 thousand). Due to the positive outlook for the future business development*, GEA expects to increase the usability of tax loss carryforwards, particularly in the USA (EUR -60,595 thousand) and Germany (EUR -9,993 thousand). The change in valuation allowances also includes tax effects on losses in the current year 2023, for which no deferred tax assets were recognized (EUR 9,280 thousand; previous year: EUR 8,755 thousand).

The “foreign tax rate differences” of EUR -25,034 thousand (previous year: EUR -17,727 thousand) result from different tax rates outside Germany compared with the German tax rate of 30.40 percent. The tax rates for foreign companies vary between 0.00 percent (United Arab Emirates) and 35.00 percent (Argentina). Significant tax income is generated in the USA (EUR -5,502 thousand), China (EUR -2,714 thousand) and the United Arab Emirates (EUR -2,671 thousand).

The “taxes relating to other periods” amounted to EUR -7 thousand (previous year: EUR -1,337 thousand); they comprise prior-period current taxes of EUR -1,503 thousand and prior-period deferred taxes of EUR 1,496 thousand.

Other reconciliation effects of EUR 12,385 thousand (previous year: EUR 5,071 thousand) mainly include withholding tax and other foreign tax expense of EUR 7,964 thousand (previous year: EUR 5,207 thousand).

*) For further information regarding future business development please see section 6.2 of the Notes to the Consolidated Financial Statements.

Deferred taxes as of December 31, 2023, changed as follows:

(EUR thousand)	01/01/2023 Net	Effects recognized in profit and loss	Effects recognized in OCI	Other*	12/31/2023 Net	Deferred tax assets	Deferred tax liabilities
Property, plant and equipment	-51,051	3,265	–	-903	-48,689	7,100	55,789
Goodwill	-28,384	-1,440	–	258	-29,566	2,812	32,378
Other intangible assets	-67,853	266	–	-372	-67,959	830	68,789
Other non-current financial assets	-3,510	683	–	–	-2,827	1,636	4,463
Other non-current assets	-196	88	–	–	-108	–	108
Non-current assets	**-150,994**	**2,862**	**–**	**-1,017**	**-149,149**	**12,378**	**161,527**
Inventories	169,433	20,411	–	-623	189,221	197,990	8,769
Trade receivables and contract assets	-92,920	5,976	–	-235	-87,179	25,263	112,442
Other current financial assets	16,303	-24,168	35	-105	-7,935	6,873	14,808
Other current assets	-23,143	25,719	–	31	2,607	2,723	116
Cash and cash equivalents	28	660	–	–	688	696	8
Current assets	**69,701**	**28,598**	**35**	**-932**	**97,402**	**233,545**	**136,143**
Total assets	**-81,293**	**31,460**	**35**	**-1,949**	**-51,747**	**245,923**	**297,670**
Non-current provisions	15,024	-1,312	–	5,348	19,060	19,060	–
Non-current employee benefit obligations	80,115	-9,422	13,790	2,348	86,831	87,413	582
Other non-current financial liabilities	23,947	-1,009	–	619	23,557	25,252	1,695
Other non-current liabilities and contract liabilities	2,536	-2,314	–	-64	158	158	–
Non-current liabilities	**121,622**	**-14,057**	**13,790**	**8,251**	**129,606**	**131,883**	**2,277**
Current provisions	14,950	7,495	–	-1,289	21,156	37,488	16,332
Current employee benefit obligations	17,480	-887	–	-97	16,496	17,953	1,457
Other current financial liabilities	19,485	-7,251	10	364	12,608	14,612	2,004
Trade payables	16,447	1,612	–	673	18,732	38,325	19,593
Other current liabilities and contract liabilities	-89,181	-38,375	–	-191	-127,747	14,333	142,080
Current liabilities	**-20,819**	**-37,406**	**10**	**-540**	**-58,755**	**122,711**	**181,466**
Total equity and liabilities	**100,803**	**-51,463**	**13,800**	**7,711**	**70,851**	**254,594**	**183,743**
Total deferred taxes on temporary differences	**19,510**	**-20,003**	**13,835**	**5,762**	**19,104**	**500,517**	**481,413**
Tax loss carryforwards	219,631	40,870	–	-3,757	256,744	256,744	–
Offsetting of deferred taxes	–	–	–	–	–	-374,538	-374,538
Total recognized deferred taxes	**239,141**	**20,867**	**13,835**	**2,005**	**275,848**	**382,723**	**106,875**

*) Change in deferred taxes relating to IFRS 5, currency translations and changes in consolidated group

Deferred taxes as of December 31, 2022, changed as follows:

(EUR thousand)	01/01/2022 Net	Effects recognized in profit and loss	Effects recognized in OCI	Other*	12/31/2022 Net	Deferred tax assets	Deferred tax liabilities
Property, plant and equipment	-49,749	-1,145	–	-157	-51,051	5,007	56,058
Goodwill	-27,800	-381	–	-203	-28,384	3,556	31,940
Other intangible assets	-74,589	6,746	–	-10	-67,853	984	68,837
Other non-current financial assets	-4,913	1,402	–	1	-3,510	437	3,947
Other non-current assets	-92	-104	–	–	-196	–	196
Non-current assets	**-157,143**	**6,518**	**–**	**-369**	**-150,994**	**9,984**	**160,978**
Inventories	147,946	21,099	–	388	169,433	177,497	8,064
Trade receivables and contract assets	-80,231	-12,840	–	151	-92,920	26,393	119,313
Other current financial assets	-2,799	19,031	-35	106	16,303	31,064	14,761
Other current assets	-58	-23,084	–	-1	-23,143	187	23,330
Cash and cash equivalents	1,611	-1,583	–	–	28	96	68
Current assets	**66,468**	**2,623**	**-35**	**644**	**69,701**	**235,237**	**165,536**
Total assets	**-90,674**	**9,141**	**-35**	**275**	**-81,293**	**245,221**	**326,514**
Non-current provisions	29,631	-3,186	–	-11,422	15,024	15,052	28
Non-current employee benefit obligations	134,341	10,962	-66,185	997	80,115	81,156	1,041
Other non-current financial liabilities	23,167	1,179	-468	69	23,947	26,309	2,362
Other non-current liabilities and contract liabilities	464	2,066	–	7	2,536	1,938	-598
Non-current liabilities	**187,603**	**11,022**	**-66,653**	**-10,349**	**121,622**	**124,455**	**2,833**
Current provisions	22,670	-8,053	–	333	14,950	34,019	19,069
Current employee benefit obligations	15,767	1,568	–	145	17,480	18,015	535
Other current financial liabilities	16,788	2,661	–	36	19,485	20,907	1,422
Trade payables	12,448	3,905	–	94	16,447	31,605	15,158
Other current liabilities and contract liabilities	-78,981	-10,138	–	-62	-89,181	18,500	107,681
Current liabilities	**-11,309**	**-10,057**	**–**	**546**	**-20,819**	**123,046**	**143,865**
Total equity and liabilities	**176,294**	**965**	**-66,653**	**-9,803**	**100,803**	**247,501**	**146,698**
Total deferred taxes on temporary differences	**85,620**	**10,106**	**-66,688**	**-9,528**	**19,510**	**492,722**	**473,212**
Tax loss carryforwards	192,328	23,147	–	4,156	219,631	219,631	–
Offsetting of deferred taxes	–	–	–	–	–	-362,222	-362,222
Total recognized deferred taxes	**277,948**	**33,253**	**-66,688**	**-5,372**	**239,141**	**350,131**	**110,990**

*) Change in deferred taxes relating to IFRS 5, currency translations and changes in consolidated group

As of December 31, 2023, deferred taxes were not recognized on deductible temporary differences amounting to EUR 25,880 thousand (previous year: EUR 18,810 thousand), since it is not reliably certain that sufficient taxable profits will be available in the future against which the deferred tax assets can be utilized.

With regards to lease contracts, the group recognizes deferred tax liabilities of EUR 39,682 thousand (previous year: EUR 48,177 thousand) for right of use assets reported under property, plant and equipment, and deferred tax assets of EUR 40,696 thousand (previous year: EUR 49,570 thousand) for lease liabilities reported under other financial liabilities.

The amount of income taxes in revenue reserves is EUR 83,769 thousand (previous year: EUR 69,979 thousand) for actuarial gains and losses on pensions and similar obligations. In accumulated other comprehensive income, income taxes amount to EUR 10 thousand (previous year: EUR -35 thousand) for unrealized gains and losses from cash flow hedges.

Deferred tax liabilities of EUR 3,621 thousand (previous year: EUR 3,186 thousand) were recognized as of December 31, 2023, for expected dividend payments from subsidiaries. In this context, as of December 31, 2023, deferred tax liabilities of EUR 3,510 thousand (previous year: EUR 3,390 thousand) were recognized for withholding taxes likely to be incurred.

As of December 31, 2023, no deferred taxes were recognized for taxable temporary differences arising from investments in subsidiaries in the amount of EUR 261,318 thousand (previous year: EUR 259,722 thousand) since the company is able to control their reversal and no reversals will be made in the foreseeable future.

Deferred tax assets include an amount of EUR 91,131 thousand recognized for companies in the income tax group of GEA Group Aktiengesellschaft. Of this amount, EUR 91,752 thousand is attributable to deferred tax assets on tax loss carryforwards. The income tax group reported a minor corporate income tax loss in fiscal year 2023. GEA assumes favorable business development in future years so that the tax assets recognized as of December 31, 2023 will be recoverable using estimated future taxable profits.

GEA Group Aktiengesellschaft did not recognize any deferred tax assets for an interest carry-forward in the amount of EUR 10,500 thousand pursuant to Section 4h of the German income tax law (EStG) which occurred for the first time in 2023.

As of December 31, 2023, GEA recognized deferred tax assets in the amount of EUR 256,744 thousand (previous year: EUR 219,631 thousand) on tax loss carryforwards:

(EUR thousand)	12/31/2023	12/31/2022
Deferred tax assets on domestic tax loss carryforwards:		
Corporate income tax	53,427	56,681
Trade tax	72,261	65,319
Deferred tax assets on foreign tax loss carryforwards	131,056	97,631
Total	**256,744**	**219,631**

The total amount of the deferred tax assets on tax loss carryforwards largely relates to Germany and the USA.

Deferred tax assets were fully impaired for corporate income tax loss carryforwards of EUR 452,397 thousand (previous year: EUR 743,279 thousand), trade tax loss carryforwards of EUR 556,362 thousand (previous year: 626,585 thousand), and loss carryforwards in connection with U.S. state taxes of EUR 2,223,841 thousand (previous year: 2,308,245 thousand) as their utilization is not reliably certain.

Also, as a general rule, deferred tax assets were not recognized in Germany for corporate income tax loss carryforwards (EUR 85,949 thousand; previous year: EUR 85,949 thousand) and trade tax loss carryforwards (EUR 33,656 thousand; previous year: EUR 33,656 thousand) that arose prior to fiscal unity. Outside Germany, deferred tax assets were not recognized for corporate income tax loss carryforwards of EUR 35,220 thousand (previous year: EUR 25,518 thousand) and local income tax loss carryforwards of EUR 10,813 thousand (previous year: EUR 0 thousand).

The tax loss carryforwards of the German companies can be carried forward for an indefinite period. Tax loss carryforwards of foreign companies for which no deferred tax assets were recognized (corporate income tax loss carryforwards EUR 281,276 thousand, previous year: EUR 551,423 thousand; local income tax loss carry-forwards EUR 2,234,654 thousand, previous year: EUR 2,308,245 thousand) can generally only be utilized for a limited period. This relates in particular to the USA, where the tax loss carryforwards for which no deferred taxes were capitalized (corporate income tax loss carryforwards EUR 167,383 thousand, previous year: EUR 459,678 thousand; state tax loss carryforwards EUR 2,223,841 thousand, previous year: EUR 2,308,245 thousand) are expected to expire in 2029.

In the context of the so-called OECD/G20 Inclusive Framework, approximately 138 countries agreed on introducing a global minimum taxation. The aim of this framework is to ensure a minimum tax rate of 15 percent in the countries in which multinational groups operate. In December 2021, the OECD published the so-called "Model Rules" which serve as a legislative proposal for implementation in national law, followed by a guidance published in March 2022 as well as a commentary and interpretation aids.

2024 is envisaged to be the first effective year of the minimum tax implementation in local tax laws. As a result, legislation to ensure a global minimum taxation rate for corporate groups came into force in Germany on December 28, 2023. The Minimum Tax Act (Mindeststeuergesetz) applies to all fiscal years beginning on or after December 30, 2023 and has therefore no impact on GEA's current tax expense for fiscal year 2023. GEA applies the temporary, mandatory exemption for deferred taxes and recognizes potential tax effects at the time they arise.

Due to the complexity involved in applying and calculating the global minimum taxation rate, the quantitative effects of the legislation that has come into force cannot be predicted with certainty. This means that there could be tax implications even for companies with an effective tax rate of over 15 percent.

The potential impact of the global minimum taxation rate on GEA was analyzed at the reporting date using an indicative analysis based on the profit levels[1] and the effective tax rate[2] in the countries in which GEA operates. The following countries are countries in which GEA operates and could potentially be subject to a global minimum taxation rate: Brazil, Lithuania, Malaysia, Romania, Taiwan, Hungary and the United Arab Emirates. In fiscal year 2023, these countries of operation accounted for a share of the profit of EUR 37,141 thousand and an average effective tax rate applicable to this profit of 7.51 percent.

The introduction of a global minimum taxation rate already in 2023, subject to the possible use of "Safe-Harbour"-Rules, would have led to an increase in the average effective Group tax rate of 0.41 percentage points.

1) Profit in this sense is defined as as earnings before taxes (EBT) according to IFRS less tax-free dividends, tax-free company disposals and write-downs on interests in companies.
2) To calculate the effective tax rate, current and deferred taxes as at the balance sheet date are adjusted for changes in valuation allowances for loss carryforwards and uncertain tax items.

8.8 Profit or loss from discontinued operations

Discontinued operations include, in particular, obligations related to the environmental protection and mining activities of the former Metallgesellschaft AG.

The result from discontinued operations in the fiscal year includes income of EUR 0.2 million (previous year: EUR 40.9 million) as well as expenses of EUR 16.9 million (previous year: EUR 3.5 million). The pre-tax loss from discontinued operations thus amounted to EUR 16.7 million (previous year: profit of EUR 37.4 million). The decrease in profit from discontinued operations is mainly attributable to the environmental protection and mining obligations. The interest rates relevant to the measurement of these obligations were adjusted to reflect current market conditions.

Overall, loss after tax from these discontinued operations in the amount of EUR 11.8 million (previous year: profit of EUR 26.4 million) had an impact on consolidated profit. This profit will be allocated in full to the shareholders of GEA Group Aktiengesellschaft. Tax income attributable to discontinued operations amounted to EUR 4.8 million (previous year: EUR 11.0 million tax expense).

8.9 Earnings per share

Earnings per share are calculated as follows:

(EUR thousand)	01/01/2023 - 12/31/2023	01/01/2022 - 12/31/2022
Profit of the period attributable to shareholders of GEA Group Aktiengesellschaft	392,765	401,430
thereof from continuing operations	404,599	375,044
thereof from discontinued operations	-11,834	26,386
Weighted average number of shares outstanding (thousand)	172,218	175,920
Basic and diluted earnings per share (EUR)		
from profit of the period	2.28	2.28
thereof attributable to continuing operations	2.35	2.13
thereof attributable to discontinued operations	-0.07	0.15

8.10 Appropriation of net profit

GEA Group Aktiengesellschaft reported net income for the fiscal year amounting to EUR 645,224 thousand in accordance with the HGB (previous year: EUR 165,321 thousand). Of this amount, EUR 322,500 thousand (previous year: EUR 2,000 thousand) was transferred to other retained earnings. Including profit brought forward of EUR 1,039 thousand (previous year: EUR 1,433 thousand), the net retained profits amounted to EUR 323,763 thousand (previous year: EUR 164,754 thousand).

The Executive Board and Supervisory Board will propose to the Annual General Meeting that the net retained profits be appropriated as follows:

Appropriation (EUR thousand)	2023	2022
Dividend payment to shareholders	170,879	163,715
Transfer to retained earnings	152,000	–
Profit carried forward	884	1,039
Total	**323,763**	**164,754**

The dividend payment corresponds to the payment of a dividend of EUR 1.00 per share for a total of 170,879,493 shares entitled to dividends as of December 31, 2023; this number reflects the GEA shares acquired by GEA Group Aktiengesellschaft up to that date, which, as treasury shares, are not entitled to dividends (previous year: 172,331,076 shares at the time of the Annual General Meeting). By the date of the Annual General Meeting, the number of no-par value shares with entitlement to dividends will decrease due to the acquisition of additional treasury shares by GEA Group Aktiengesellschaft as part of the ongoing share buyback program. A correspondingly adjusted resolution proposal will therefore be put to a vote at the Annual General Meeting, which will stipulate an unchanged dividend of EUR 1.00 per dividend-bearing share, but with correspondingly adjusted amounts for the total dividend distribution and the profit carried forward. The amount of EUR 152,000 thousand to be transferred to retained earnings remains unchanged.

9. Contingent Liabilities, Other Financial Obligations, Contingent Assets, and Litigations

9.1 Contingent liabilities

GEA has issued or instructed the issue of both bank and group guarantees in favor of customers or lenders. The obligations presented in the following table relate to contingent liabilities for which the primary debtor is not a consolidated company of the group as a whole.

	Bank guarantees		Group guarantees	
(EUR thousand)	2023	2022	2023	2022
Guarantees for prepayments	5,489	7,426	273	–
Warranties	349	2,261	–	–
Performance guarantees	850	5,219	150	101,275
Other declarations of liability	2,432	2,046	7,682	8,493
Total	**9,120**	**16,952**	**8,105**	**109,768**
thereof attributable to Lurgi	–	–	–	101,428

In the previous year, most of the group guarantees were attributable to the operating activities of Lurgi, which were disposed of in previous years.

The other guarantees relate mainly to customers of non-consolidated companies and to banks. The beneficiaries are entitled to asset claims under the guarantees if the primary debtor fails to meet its contractual obligations, for example, in the case of late or defective delivery, non-compliance with warranted performance parameters or failure to repay loans in accordance with the contractual requirements.

The guarantees include contingent liabilities of EUR 4,564 thousand resulting from joint ventures (previous year: EUR 7,709 thousand); there is no further liability above and beyond this.

All guarantees issued by or on the instructions of GEA Group Aktiengesellschaft are issued on behalf of and with recourse against the relevant primary debtor.

In addition to the liability risks resulting from bank and group guarantees, there are risks in particular from court, arbitration, or out-of-court disputes that could result in cash outflows. Further information on this topic can be found in the “Legal Risks” section of the Management Report.

9.2 Other financial obligations

The other financial obligations of the group as of December 31, 2023, are composed of purchase commitments which amount to EUR 142,508 thousand (previous year: EUR 196,791 thousand). EUR 121,374 thousand (previous year: EUR 117,281 thousand) of the purchase commitments are attributable to inventories and EUR 15,180 thousand (previous year: EUR 74,638 thousand) to property, plant and equipment.

The group has entered into various lease agreements, which had not commenced at December 31, 2023. The future lease payments for these non-cancelable leases amount to EUR 3,912 thousand (previous year: EUR 176 thousand) for the next year, EUR 23,113 thousand (previous year: EUR 323 thousand) for years two to five and EUR 32,954 thousand (previous year: EUR 0 thousand) for the period thereafter.

10. Segment Reporting

10.1 Description of operating segments

GEA's business activities are divided into five divisions, which are organized based on similar technologies, as follows:

Segment	Activities
Separation & Flow Technologies	Manufacture of process-related components and machinery, notably separators, decanters, homogenizers, valves and pumps.
Liquid & Powder Technologies	Process solutions for the dairy, new-food, beverage, food, chemical and other industries; the portfolio includes brewing systems, liquid processing and filling, concentration, precision fermentation, crystallization, purification, drying, powder handling and packaging, as well as systems for carbon capture and emission control.
Food & Healthcare Technologies	Solutions for food processing and the pharmaceutical industry, for example preparing, marinating and further processing of meat, poultry, seafood and vegan products, pasta and confectionery production, baking, slicing, packaging, and frozen food processing and freeze drying, granulators and tablet presses for the pharmaceutical industry.
Farm Technologies	Integrated customer solutions for efficient and profitable milk production and livestock farming, e.g. automatic milking and feeding systems, conventional milking solutions, manure handling and digital herd management tools.
Heating & Refrigeration Technologies	Sustainable energy solutions in the field of industrial refrigeration and heating for a wide array of industries including food, beverage, dairy, and oil and gas.

A Global Corporate Center bundles all supporting management and administrative functions and performs the management functions for the entire group. The functions bundled in the Global Corporate Center do not constitute independent operating segments. The operating expenses of the Global Corporate Center are allocated, where possible, to the divisions.

Activities that are not part of core business are not disclosed in the data of the divisions. This includes liabilities related to discontinued operations.

The breakdown into divisions is consistent with internal management and reporting to the Executive Board and Supervisory Board.

(EUR million)	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	**Total Segments**	Others	Consolidation	**GEA**
01/01/2023 - 12/31/2023									
Order backlog[1]	594.3	1,445.5	634.5	277.2	237.0	**3,188.5**	–	-72.0	**3,116.6**
Order intake[1]	1,556.5	1,754.0	1,026.7	788.3	580.8	**5,706.3**	–	-236.9	**5,469.4**
External revenue	1,378.3	1,697.8	998.5	782.5	516.4	**5,373.5**	–	–	**5,373.5**
Intersegment revenue	133.1	26.4	30.9	1.8	39.9	**232.0**	–	-232.0	**–**
Total revenue	1,511.4	1,724.2	1,029.4	784.3	556.3	**5,605.5**	–	-232.0	**5,373.5**
EBITDA before restructuring expenses	395.9	177.8	78.4	109.6	66.2	**827.9**	-52.3	-1.3	**774.3**
as % of revenue	26.2	10.3	7.6	14.0	11.9	**14.8**	–	–	**14.4**
EBITDA	393.3	168.6	55.9	102.4	60.7	**780.9**	-65.8	-1.3	**713.8**
EBIT before restructuring expenses	350.8	141.0	31.8	83.3	52.6	**659.5**	-77.7	-1.2	**580.6**
as % of revenue	23.2	8.2	3.1	10.6	9.5	**11.8**	–	–	**10.8**
EBIT	348.2	131.9	8.9	76.0	47.1	**612.1**	-91.2	-1.2	**519.7**
as % of revenue	23.0	7.6	0.9	9.7	8.5	**10.9**	–	–	**9.7**
ROCE in % (3rd Party)[2]	37.8	–	6.7	28.8	39.2	**–**	–	–	**32.7**
Profit or loss from discontinued operations	–	–	–	–	–	**–**	-11.8	–	**-11.8**
Segment assets	2,882.6	2,008.9	1,430.9	740.1	586.4	**7,648.8**	3,674.6	-5,369.2	**5,954.2**
Capital employed (reporting date, 3rd Party)[3]	940.4	-89.3	430.4	266.0	115.2	**1,662.7**	10.4	–	**1,673.1**
Net working capital (reporting, date3rd Party)[4]	284.9	-186.1	102.2	135.8	57.5	**394.3**	-48.5	-	**345.9**
Additions to property, plant and equipment and intangible assets	97.2	43.4	72.7	37.3	20.3	**270.8**	19.6	-	**290.4**
Depreciation and amortization	44.7	34.0	43.7	25.1	13.5	**161.0**	21.0	-0.1	**181.9**
Impairment losses	0.4	2.7	3.3	1.2	0.1	**7.7**	4.4	0.0	**12.2**

(EUR million)	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	**Total Segments**	Others	Consolidation	**GEA**
01/012022 - 12/31/2022									
Order backlog[1]	592.0	1,495.9	664.8	290.7	222.9	**3,266.3**	–	-73.6	**3,192.7**
Order intake[1]	1,537.0	1,865.1	1,094.1	825.2	581.1	**5,902.6**	–	-223.7	**5,678.9**
External revenue	1,282.2	1,683.0	967.5	735.7	496.4	**5,164.7**	–	-	**5,164.7**
Intersegment revenue	133.4	32.7	33.8	6.3	27.2	**233.5**	–	-233.5	**–**
Total revenue	1,415.6	1,715.6	1,001.3	742.0	523.6	**5,398.2**	–	-233.5	**5,164.7**
EBITDA before restructuring expenses	360.2	165.6	107.3	86.1	57.1	**776.4**	-64.6	0.2	**712.0**
as % of revenue	25.4	9.7	10.7	11.6	10.9	**14.4**	–	–	**13.8**
EBITDA	335.4	160.7	103.4	79.4	49.8	**728.7**	-74.9	0.2	**654.0**
EBIT before restructuring expenses	316.8	129.6	65.5	58.2	42.9	**613.0**	-84.3	0.3	**529.1**
as % of revenue	22.4	7.6	6.5	7.8	8.2	**11.4**	–	–	**10.2**
EBIT	288.5	124.7	58.7	50.9	32.5	**555.3**	-94.6	0.3	**461.0**
as % of revenue	20.4	7.3	5.9	6.9	6.2	**10.3**	–	–	**8.9**
ROCE in % (3rd Party)[2]	37.2	–	15.2	20.0	25.5	**–**	–	–	**31.8**
Profit or loss from discontinued operations	–	–	–	–	–	**–**	26.4	–	**26.4**
Segment assets	2,736.9	2,029.4	1,406.0	717.4	581.4	**7,471.2**	3,471.2	-5,021.4	**5,921.0**
Capital employed (reporting date, 3rd Party)[3]	855.9	-157.5	452.1	278.7	154.5	**1,583.8**	6.3	–	**1,590.1**
Net working capital (reporting, date3rd Party)[4]	257.3	-228.7	116.8	139.6	72.5	**357.5**	-43.4	–	**314.1**
Additions to property, plant and equipment and intangible assets	88.1	40.5	52.9	37.9	8.8	**228.2**	40.9	-1.1	**268.1**
Depreciation and amortization	43.1	33.6	41.8	28.0	14.2	**160.7**	19.7	-0.1	**180.2**
Impairment losses[5]	3.7	2.4	2.9	0.6	3.2	**12.8**	–	-	**12.8**

1) Unaudited supplemental information.
2) ROCE = EBIT before restructuring expenses/capital employed; EBIT before restructuring expenses and capital employed both calculated as the average for the last 4 quarters and before effects relating to goodwill from the acquisition of the former GEA AG by the former Metallgesellschaft AG in 1999; capital employed = non-current assets less interest-bearing non-current assets + working capital + non-interest-bearing assets, liabilities and provisions less assets and liabilties in connection with income taxes; ROCE, as one of the relevant performance indicators, is considered as „ROCE 3rd Party" (excluding interdivisional effects in the capital employed) at the disvisional level. Due to negative capital employed, ROCE is not meaningful for the division LPT.
3) Capital employed is considered as „Capital employed 3rd Party" at the divisional level.
4) Working capital = inventories + trade receivables + contract assets - trade payables - contract liabilities - provisions for anticipated losses (POC); Net working capital is considered as „Net working capital 3rd Party" at the divisional level.
5) Included are impairment losses in connection with the classification as „held for sale"; Further details can be found in Note 6.2.

Consolidation primarily comprises the elimination of investments in subsidiaries, intragroup receivables, liabilities, revenue, and income and expenses. Intersegment revenue is calculated using standard market prices.

The following table shows the reconciliation of EBITDA to EBIT:

Reconciliation of EBITDA to EBIT (EUR million)	2023	2022
EBITDA	**713.8**	**654.0**
Depreciation of property, plant and equipment, investment property, and amortization of intangible assets (see notes 6.1, 6.3)	-181.9	-180.2
Impairment losses and reversals of impairment losses on property, plant and equipment, investment property, goodwill, intangible assets and impairment losses in connection with the classification as „held for sale“ (see notes 6.1, 6.2, 6.3, 8.4)	-7.9	-10.2
Impairment losses and reversals of impairment losses on non-current financial assets	-4.3	-2.7
EBIT	**519.7**	**461.0**

The reconciliation of GEA's EBIT to earnings before income taxes from continuing operations is shown in the following table:

Reconciliation EBIT GEA to profit before tax from continuing operations (EUR million)	2023	2022
EBIT	**519.7**	**461.0**
Interest income	17.0	10.5
Interest expenses	-38.1	-24.8
Profit before tax from continuing operations	**498.6**	**446.7**

A detailed discussion of changes in interest income and interest expenses is included in sections 8.5 and 8.6 of the Notes to the Consolidated Financial Statements.

The breakdown of revenue elements by division is shown in the following tables:

(EUR million)	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	Consolidation	GEA
01/01/2023 -12/31/2023							
Revenue by revenue element							
From construction contracts	343.4	1,229.1	493.8	–	197.0	-42.8	**2,220.5**
From components business	459.4	88.5	194.5	432.3	152.6	-116.4	**1,210.8**
From service agreements	708.6	406.6	341.1	352.0	206.7	-72.8	**1,942.2**
Total	**1,511.4**	**1,724.2**	**1,029.4**	**784.3**	**556.3**	**-232.0**	**5,373.5**

(EUR million)	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	Consolidation	GEA
01/01/2022 -12/31/2022							
Revenue by revenue element							
From construction contracts	315.5	1,273.9	513.0	–	176.6	-45.7	**2,233.3**
From components business	442.6	81.7	181.8	396.2	146.8	-118.8	**1,130.3**
From service agreements	657.4	360.1	306.5	345.8	200.2	-68.9	**1,801.1**
Total	**1,415.6**	**1,715.6**	**1,001.3**	**742.0**	**523.6**	**-233.5**	**5,164.7**

In the presentation of segment disclosures by geographic region, revenue is allocated by the destination of the goods or place of performance of the services or by customer domicile.

External revenue (EUR million)	2023	2022	Change in %
Asia Pacific	1,198.0	1,236.2	-3.1
DACH & Eastern Europe	1,019.2	974.5	4.6
thereof Germany	454.0	429.0	5.8
Latin America	382.2	319.5	19.6
North America	1,161.5	1,106.6	5.0
North- and Central Europe	781.6	730.8	7.0
Western Europe, Middle East & Africa	831.1	797.2	4.3
GEA	**5,373.5**	**5,164.7**	**4.0**

In the reporting period, revenue of EUR 1,042.3 million (previous year: EUR 983.6 million) was attributable to the United States and EUR 497.8 million (previous year: EUR 520.4 million) was attributable to China. There are no relationships with individual customers whose revenue can be considered material in comparison to total group revenue.

In accordance with its internal control system, GEA's management uses ROCE, EBITDA margin before restructuring measures and revenue as key indicators for management purposes. When calculating EBITDA margin before restructuring measures, EBITDA adjustments are made for effects on earnings attributable to restructuring measures whose content, scope and definition are described by the Chairman of the Executive Board, presented to the Chairman of the Supervisory Board and jointly agreed to. Only measures exceeding EUR 2 million shall be taken into account. If, in addition, the relevant transaction requires approval in accordance with the Rules of Procedure of the Executive Board, it must also be approved by the Supervisory Board.

In accordance with the above definition, adjustments for restructuring expenses in fiscal year 2023 totaled EUR 60.9 million (previous year: EUR 68.1 million), with EUR 60.5 million (previous year: EUR 58.0 million) of this amount included in EBITDA. In the year under review, restructuring expenses of EUR 41.4 million were cash-effective (previous year: EUR 37.6 million). In this context, the term restructuring expenses includes expenses that are directly related to the restructuring measures (e.g., severance payments) and therefore also qualify as restructuring expenses under IAS 37. In addition, the restructuring measures defined by the Executive Board also include impairment losses on assets as well as other expenses indirectly caused by the restructuring measures.

The restructuring expenses* incurred in fiscal year 2023 can be allocated to the divisions as follows:

(EUR million)	Separation & Flow Technologie	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	Others	GEA
Restructuring according to IAS 37	-7.3	0.3	5.5	0.1	0.2	–	**-1.2**
Impairments and reversals of impairments	0.5	4.2	5.0	2.5	1.5	–	**13.7**
Others	9.4	4.6	12.3	4.7	3.8	13.6	**48.4**
Total	**2.6**	**9.1**	**22.8**	**7.3**	**5.5**	**13.6**	**60.9**

*) Restructuring expense: + / restructuring income: -

In fiscal year 2023, restructuring expenses in accordance with IAS 37 of EUR 5.5 million incurred within Food & Healthcare Technologies division for optimizing the production landscape. Furthermore "Others" mainly included expenses in connection with selling the milling systems business. Moreover in fiscal year 2023, net income from the addition and reversal of provisions for restructuring expenses in accordance with IAS 37 of EUR 7.3 million incurred within the Separation & Flow Technologies divison. The EUR 13.6 million under "Others" relate primarily to expenses in connection with the strategic realignment of the group and the announced and partially executed portfolio streamlining. Furthermore, adjustments were made in all divisions in connection with the adverse economic effects of the Russia-Ukraine war. These include, among others, severance payments, expected additional expenses for the fulfillment of existing warranty obligations as well as valuation allowances resulting from the termination of contracts due to sanctions. The total effect amounts to EUR 9.8 million.

10.2 Disclosures by geographic region

Non-current assets (property, plant and equipment, investment property and intangible assets excluding goodwill) are allocated according to their respective locations. The figures quoted relate to the group as a whole.

(EUR millions)	Asia Pacific	DACH & Eastern Europe	thereof Germany	Latin America	North America	North- and Central Europe	Western Europe, Middle East & Africa	**Total**
01/01/2023 - 12/31/2023								
Non-current assets	110.7	587.8	508.0	8.5	96.8	136.2	248.7	**1,188.7**
01/01/2022 - 12/31/2022								
Non-current assets	120.0	536.2	468.2	7.4	78.3	132.7	229.8	**1,104.5**

The carrying amounts of non-current assets in Italy amounted to EUR 228.6 million (previous year: EUR 212.8 million) as of the reporting date, in the United States to EUR 75.3 million (previous year: EUR 60.1 million) and in the Netherlands to EUR 68.1 million (previous year: EUR 65.0 million). These are the countries with the largest stock of non-current assets.

11. Other Disclosures

11.1 Cash flow disclosures

Other financial liabilities, the inflows and outflows of which appear in the statement of cash flows under cash flows from financing activities, changed as follows in fiscal year 2023:

(EUR thousand)	Balance at 01/01/2023	Cash flow from financing activities	Changes in consolidated group	Exchange rate differences	Changes in fair value	Other changes	**Balance at 12/31/2023**
Bonds and debentures issued	99,935	–	–	–	–	29	**99,964**
Finance loans	131	–	–	-6	–	-125	**–**
Liabilities to board members	–	–	–	–	–	–	**–**
Liabilities from finance leases	106,749	–	1,182	-2,909	–	-9,138	**95,884**
Other non-current financial liabilities	**206,815**	**–**	**1,182**	**-2,915**	**–**	**-9,234**	**195,848**
Bonds and debentures issued	102,036	-100,000	–	–	–	-822	**1,214**
Finance loans	5,036	-4,344	–	–	–	35	**727**
Liabilities to board members	–	–	–	–	–	–	**–**
Liabilities from finance leases	58,484	-64,033	237	-1,430	–	65,646	**58,904**
Other current financial liabilities	**165,556**	**-168,377**	**237**	**-1,430**	**–**	**64,859**	**60,845**
Interest rate swap and forward exchange contracts used for hedging - assets	–	–	–	–	–	–	**–**
Interest rate swap and forward exchange contracts used for hedging - liabilities	–	–	–	–	–	–	**–**
Total	**372,371**	**-168,377**	**1,419**	**-4,345**	**–**	**55,625**	**256,693**

(EUR thousand)	Balance at 01/01/2023	Cash flow from financing activities	Changes in consolidated group	Exchange rate differences	Changes in fair value	Other changes	**Balance at 12/31/2023**
Bonds and debentures issued	249,824	–	–	–	–	-149,889	**99,935**
Finance loans	412	–	–	-60	–	-221	**131**
Liabilities to board members	–	–	–	–	–	–	**–**
Liabilities from finance leases	110,166	–	844	-579	–	-3,682	**106,749**
Other non-current financial liabilities	**360,402**	**–**	**844**	**-639**	**–**	**-153,792**	**206,815**
Bonds and debentures issued	2,143	-50,000	–	–	–	149,893	**102,036**
Finance loans	10,345	-5,393	–	–	–	84	**5,036**
Liabilities to board members	–	–	–	–	–	–	**–**
Liabilities from finance leases	55,650	-63,682	606	93	–	65,817	**58,484**
Other current financial liabilities	**68,138**	**-119,075**	**606**	**93**	**–**	**215,794**	**165,556**
Interest rate swap and forward exchange contracts used for hedging - assets	–	–	–	–	–	–	**–**
Interest rate swap and forward exchange contracts used for hedging - liabilities	–	–	–	–	–	–	**–**
Total	**428,540**	**-119,075**	**1,450**	**-546**	**–**	**62,002**	**372,371**

The table shown does not include other financial liabilities of EUR 84,321 thousand (previous year: EUR 104,825 thousand), as the resulting cash flows are not allocated to cash flows from financing activities.

Other financial liabilities include liabilities to affiliated companies of EUR 11,995 thousand (previous year: EUR 21,439 thousand), liabilities to employees of EUR 17,145 thousand (previous year: EUR 17,371 thousand), liabilities from derivatives of EUR 2,438 thousand (previous year: EUR 11,847 thousand), as well as other financial liabilities of EUR 52,743 thousand (previous year: EUR 54,168 thousand).

11.2 Government grants

Government grants related to income amounting to EUR 3,841 thousand were received in fiscal year 2023 (previous year: EUR 2,167 thousand). Grants related to assets of EUR 213 thousand (previous year: EUR 406 thousand) were deducted from the carrying amounts of the assets concerned. In addition, expenses of EUR 41 thousand (previous year: EUR 52 thousand) were incurred for the potential repayment of grants received.

The majority of the government grants relate to funding for research and development activities.

11.3 Related party disclosures

11.3.1 Related party transactions

Transactions between GEA Group Aktiengesellschaft and its consolidated subsidiaries have been eliminated in the course of consolidation. Revenue and expenses from transactions between continuing and discontinued operations were not eliminated if they will continue to be incurred following the disposal of the discontinued operation.

Transactions with non-consolidated subsidiaries and joint ventures mainly relate to regular deliveries of goods and services. Income and expenses from transactions between the group as a whole and these companies are composed of the following items:

(EUR thousand)	Revenue	Other income	Other expenses
01/01/2023 - 12/31/2023			
Unconsolidated subsidiaries	44,839	1,394	–
Joint ventures	12,591	–	–
Total	**57,430**	**1,394**	**–**
01/01/2022 - 12/31/2022			
Unconsolidated subsidiaries	29,585	1,080	2
Joint ventures	22,642	–	–
Total	**52,227**	**1,080**	**2**

Related party transactions resulted in the following outstanding items in the group as a whole as of December 31, 2023:

(EUR thousand)	Trade receivables	Trade payables	Other receivables	Other liabilities
12/31/2023				
Unconsolidated subsidiaries	18,238	2,971	6,854	11,173
Joint ventures	1,527	645	–	1
Total	**19,765**	**3,616**	**6,854**	**11,174**
thereof current	18,490	3,616	4,578	11,174
12/31/2022				
Unconsolidated subsidiaries	11,141	2,307	7,679	21,020
Joint ventures	2,114	882	1	–
Total	**13,255**	**3,189**	**7,680**	**21,020**
thereof current	13,245	3,189	5,404	21,020

In the reporting year, impairment losses on other receivables from unconsolidated subsidiaries of EUR 1,991 thousand (previous year: EUR 3,054 thousand) were recognized. No impairment losses were recognized on investments in unconsolidated subsidiaries in the current fiscal year (previous year: EUR 2,672 thousand).

As of the current reporting date and the previous year, no trade payables to unconsolidated subsidiaries were secured.

11.3.2 Remuneration of the Executive Board and the Supervisory Board

The total remuneration of the Executive Board and Supervisory Board of GEA Group Aktiengesellschaft in fiscal year 2023 in accordance with IFRS amounted to EUR 10,208 thousand (previous year: EUR 11,475 thousand). This amount comprises the following elements:

EUR thousand)	2023	2022
Short-term employee benefits	7,661	7,816
Post-employment benefits	809	900
Share-based payments	1,738	2,759
Total	**10,208**	**11,475**

The share-based payments comprise the expense incurred in the fiscal year from share-based payment.

During fiscal year 2023, the expenses incurred for the Supervisory Board amounted to EUR 1,744 thousand (previous year: EUR 1,309 thousand).

The total compensation granted to active members of the Executive Board in the fiscal year in accordance with section 314 of the HGB amounted to EUR 8,443 thousand (previous year: EUR 9,185 thousand). Included herein are fixed annual salaries, fringe benefits as well as short-term and long-term share-based payments. Long-term share-based payments are included in the amount of the fair value at the grant date of EUR 2,526 thousand, attributable to 67,619 shares (previous year: EUR 2,678 thousand, attributable to 61,256 shares) of the tranche of the performance share plan granted in the respective fiscal year.

In fiscal year 2023, former Executive Board members and their surviving dependents received remuneration in the form of pension payments from the GEA Group amounting to EUR 7,265 thousand (previous year: EUR 5,339 thousand). Pension provisions (gross value) in accordance with IFRS were recognized for former Executive Board members and their surviving dependents in the amount of EUR 62,364 thousand (previous year: EUR 67,827 thousand).

Other information on the remuneration of the Executive Board and the Supervisory Board can be found in the remuneration report.

There were no other material transactions with members of the Executive Board or Supervisory Board or their related parties in either the reporting or the comparative period.

12. Events after the End of the Reporting Period

On November 07, 2023, GEA announced another share buyback program which will run until early 2025 at the latest. The buyback is set to take place in three tranches and comprises a volume of up to EUR 400 million. The buyback program started on November 09, 2023. 1,451,583 no-par-value shares were bought back until December 31, 2023 as part of the first tranche for a purchase price of EUR 49,738 thousand. The buyback program is also continued in 2024.

13. Supplemental Disclosures in Accordance with section 315e of the HGB

13.1 Declaration on the Corporate Governance Code

The Executive Board and the Supervisory Board issued an updated Declaration of Conformity in accordance with section 161 of the Aktiengesetz (AktG – German Stock Corporation Act) on December 8, 2023, and made it permanently available to shareholders on the company's website.

13.2 Number of employees

The average number of employees during the year was as follows:

Average number of employees during the year*	2023	2022
DACH & Eastern Europe	7,189	7,021
North & Central Europe	3,258	3,144
Asia Pacific	3,060	3,035
Western Europe, Middle East & Africa	2,654	2,694
North America	1,761	1,659
Latin America	706	613
Continuing operations	**18,628**	**18,166**
DACH & Eastern Europe	–	1
Discontinued operations	**–**	**1**
Total	**18,628**	**18,167**

*) Full-time equivalents (FTEs) excluding vocational trainees and inactive employment contracts

13.3 Audit and consulting fees

The fees charged worldwide by the auditor of the consolidated financial statements, KPMG AG Wirtschaftsprüfungsgesellschaft and its network companies, for fiscal year 2023 are broken down as follows:

(EUR thousand)	2023	2022
Audit	4,950	4,472
of which KPMG AG Wirtschaftsprüfungsgesellschaft	2,290	1,911
Other audit related services	755	612
of which KPMG AG Wirtschaftsprüfungsgesellschaft	646	462
Tax consulting services	12	11
of which KPMG AG Wirtschaftsprüfungsgesellschaft	–	–
Other services	222	325
of which KPMG AG Wirtschaftsprüfungsgesellschaft	222	325
Total	**5,940**	**5,420**
of which KPMG AG Wirtschaftsprüfungsgesellschaft	**3,158**	**2,699**

KPMG AG Wirtschaftsprüfungsgesellschaft's audit fee mainly covers the auditing mandate for GEA Group Aktiengesellschaft's consolidated financial statements and annual financial statements and the review of the half-year financial report in accordance with section 115 of the German Securities Trading Act (WpHG).

Other assurance services relate to audits required by law or by contract such as EMIR audits pursuant to section 32 WpHG, the audit of the non-financial group statement, the audit of the data protection management system, or the audit of the declaration of completeness according to section 11 of the German Packaging Act (VerpackG).

The other services mainly relate to the project-related audit in connection with the implementation of SAP S/4 Hana at GEA and general accounting consulting.

13.4 Investments

The following list shows all subsidiaries and joint ventures. With the exception of other equity investments within the meaning of section 313(2) No. 4 of the HGB, this excludes investments in companies that GEA neither controls nor over which it can exercise significant influence.

	Head Office	Shares in %
Consolidated subsidiaries		
Argentina		
GEA Farm Technologies Argentina S.R.L.	Buenos Aires	100.00
GEA Process Engineering S.A.	Buenos Aires	100.00
GEA Westfalia Separator Argentina S.A.	Buenos Aires	100.00
Australia		
GEA Australia Pty. Ltd.	Melbourne Airport	100.00
GEA Farm Technologies Australia Pty. Ltd.	Melbourne Airport	100.00
GEA Nu-Con Pty. Ltd.	Kirrawee	100.00
GEA Process Engineering Pty. Ltd.	Melbourne Airport	100.00
GEA Westfalia Separator Australia Pty. Ltd.	Melbourne Airport	100.00
Austria		
GEA Austria GmbH	Plainfeld	100.00
GEA CEE GmbH	Vienna	100.00
Belgium		
GEA Farm Technologies Belgium N.V.	Kontich	100.00
GEA Process Engineering N.V.	Halle	100.00
GEA Westfalia Separator Belgium N.V.	Kontich	100.00
Brazil		
GEA Equipamentos e Soluções Ltda.	Jaguariúna	100.00
Canada		
Centrifuges Unlimited Inc.	Calgary	100.00
GEA Farm Technologies Canada Inc.	Drummondville	100.00
GEA Canada Inc.	Saint John	100.00
GEA Refrigeration Canada Inc.	Richmond	100.00
Chile		
GEA Food Solutions Chile Comercializadora Ltda.	Santiago de Chile	100.00
GEA Westfalia Separator Chile S.A.	Santiago de Chile	100.00
China		
Gbs Grain Machinery Manufacturing (Beijing) Co., Ltd.	Beijing	100.00
GEA (Shanghai) Farm Technologies Co., Ltd.	Shanghai	100.00
GEA (Tianjin) Farm Technology Co.,Ltd.	Tianjin	100.00
GEA Food Solutions (Beijing) Co., Ltd.	Beijing	100.00
GEA Food Solutions Asia Co., Ltd.	Hong Kong	100.00
GEA Hong Kong Trading Ltd.	Hong Kong	100.00
GEA Lyophil (Beijing) Ltd.	Beijing	100.00
GEA Mechanical Equipment (Tianjin) Co., Ltd.	Wuqing	100.00
GEA Process & Equipment Technologies (Suzhou) Co., Ltd.	Suzhou	100.00
GEA Process Engineering China Limited	Shanghai	100.00
GEA Process Engineering Trading (Shanghai) Ltd.	Shanghai	100.00
Shijiazhuang GEA Farm Technologies Co., Ltd.	Shijiazhuang	100.00
Colombia		
GEA Andina S.A.S.	Bogotá	100.00
Czech Republic		
GEA Czech Republic s.r.o.	Prag	100.00
Denmark		
GEA Farm Technologies Mullerup A/S	Ullerslev	100.00
GEA Food Solutions Denmark A/S	Slagelse	100.00
GEA Food Solutions International A/S	Slagelse	100.00
GEA Food Solutions Nordic A/S	Slagelse	100.00
GEA Liquid Technologies A/S	Skanderborg	100.00
GEA Process Engineering A/S	Soeborg	100.00
GEA Refrigeration Components (Nordic) A/S	Skanderborg	100.00
GEA Scan-Vibro A/S	Svendborg	100.00
GEA Westfalia Separator DK A/S	Skanderborg	100.00
Finland		
GEA Finland Oy	Helsinki	100.00
France		
GEA Farm Technologies France SAS	Château-Thierry	100.00
GEA Food Solutions France SAS	Beaucouzé	100.00

	Head Office	Shares in %
GEA Group Holding France SAS	MontignyleBretonneux	100.00
GEA Process Engineering SAS	Saint-Quentin en Yvelines Cedex	100.00
GEA Westfalia Separator France SAS	Château-Thierry	100.00
Germany		
Brückenbau Plauen GmbH	Lennestadt	100.00
GEA AWP GmbH *	Prenzlau	100.00
GEA Bischoff GmbH *	Essen	100.00
GEA Brewery Systems GmbH *	Kitzingen	100.00
GEA Diessel GmbH *	Hildesheim	100.00
GEA Erste Kapitalbeteiligungen GmbH & Co. KG *	Düsseldorf	100.00
GEA Farm Technologies GmbH *	Bönen	100.00
GEA Food Solutions Germany GmbH *	Biedenkopf-Wallau	100.00
GEA Germany GmbH *	Oelde	100.00
GEA Group Holding GmbH *	Düsseldorf	100.00
GEA Group Services GmbH *	Düsseldorf	100.00
GEA Lyophil GmbH *	Hürth	100.00
GEA Mechanical Equipment GmbH *	Oelde	100.00
GEA Messo GmbH *	Duisburg	100.00
GEA Refrigeration Germany GmbH *	Berlin	100.00
GEA Refrigeration Technologies GmbH *	Berlin	100.00
GEA TDS GmbH *	Sarstedt	100.00
GEA Tuchenhagen GmbH *	Büchen	100.00
GEA Westfalia Separator Group GmbH *	Oelde	100.00
GEA Wiegand GmbH *	Ettlingen	100.00
LL Plant Engineering AG *	Lennestadt	100.00
mg Altersversorgung GmbH *	Düsseldorf	100.00
Ruhr-Zink GmbH	Lennestadt	100.00
Great Britain		
Dixie-Union (UK) Ltd.	Milton Keynes	100.00
GEA Eurotek Ltd.	London	100.00
GEA Farm Technologies (UK) Ltd.	Warminster	100.00
GEA Food Solutions UK & Ireland Ltd.	Milton Keynes	100.00
GEA Grenco Ltd.	London	100.00

	Head Office	Shares in %
GEA Group Holdings (UK) Ltd.	Eastleigh	100.00
GEA Mechanical Equipment UK Ltd.	Milton Keynes	100.00
GEA Pharma Systems Ltd.	Eastleigh	100.00
GEA Process Engineering Ltd.	Warrington	100.00
GEA Refrigeration Components (UK) Ltd.	London	100.00
GEA Refrigeration UK Ltd.	London	100.00
Wolfking Ltd.	Milton Keynes	100.00
Iceland		
GEA Iceland ehf.	Kòpavogur	100.00
India		
GEA Process Engineering (India) Pvt. Ltd.	Vadodara	100.00
GEA Westfalia Separator India Pvt. Ltd.	Vadodara	100.00
Indonesia		
GEA Westfalia Separator Indonesia, PT	Jakarta	100.00
PT. GEA Refrigeration Indonesia	Jakarta	100.00
Ireland		
GEA Ireland Ltd.	Naas	100.00
GEA Process Technologies Ireland Ltd.	Naas	100.00
GEA Refrigeration Ireland Ltd.	Cavan	100.00
GEA Westfalia Separator Ireland Ltd.	Ballincollig	100.00
Italy		
CMT Costruzioni Meccaniche e Tecnologia S.p.A	Beinette	100.00
GEA COMAS S.p.A.	Torrebelvicino	100.00
GEA Food Solutions Italy S.r.l.	Cinisello Balsamo	100.00
GEA Imaforni S.p.A	Colognola ai Colli	100.00
GEA Mechanical Equipment Italia S.p.A.	Parma	100.00
GEA Process Engineering S.p.A.	Cinisello Balsamo	100.00
GEA Procomac S.p.A.	Sala Baganza	100.00
Golfetto Sangati S.r.l.	Galliera Veneta	100.00
Pavan S.p.A.	Galliera Veneta	100.00
Pelacci S.R.L. i.L.	Sala Baganza	67.00
Veneta Alimenti Innovativi S.r.l.	Pieve D'Alpago	100.00

	Head Office	Shares in %
Japan		
GEA Japan Ltd.	Tokyo	100.00
Lithuania		
GEA Baltics UAB	Vilnius	100.00
Malaysia		
GEA Westfalia Separator (Malaysia) Sdn. Bhd.	Shah Alam	100.00
Mexico		
Convenience Food Systems S.A. de C.V.	Mexico City	100.00
GEA Power Cooling de Mexico S. de R.L. de C.V.	Mexico City	100.00
GEA Process Engineering S.A. de C.V.	Mexico City	100.00
GEA Westfalia Separator Mexicana S.A. de C.V.	Cuernavaca	100.00
Netherlands		
BOS Homogenisers B.V.	Hilversum	100.00
GEA Farm Technologies Nederland B.V.	Deventer	100.00
GEA Food Solutions B.V.	Bakel	100.00
GEA Food Solutions Bakel B.V.	Bakel	100.00
GEA Food Solutions International B.V.	Bakel	100.00
GEA Food Solutions Weert B.V.	Weert	100.00
GEA Nederland B.V.	s-Hertogenbosch	100.00
GEA Niro PT B.V.	s-Hertogenbosch	100.00
GEA Process Engineering Nederland B.V.	Deventer	100.00
GEA Refrigeration Netherlands N.V.	s-Hertogenbosch	100.00
GEA Westfalia Separator Nederland	Cuijk	100.00
GEA Westfalia Separator Nederland B.V.	Cuijk	100.00
KET Marine International B.V.	Zevenbergen	100.00
Tullp B.V.	Raamsdonksveer	100.00
New Zealand		
Farmers Industries Ltd.	Tauranga	100.00
GEA Avapac Ltd.	Hamilton	100.00
GEA Farm Technologies New Zealand Ltd.	Hamilton	100.00
GEA Milfos International Ltd.	Hamilton	100.00
GEA New Zealand Ltd.	Auckland	100.00

	Head Office	Shares in %
Norway		
GEA Norway AS	Oslo	100.00
Panama		
GEA Central America S.A.	Panama	100.00
Peru		
GEA Peruana SAC	Lima	100.00
Philippines		
GEA Pilipinas Inc.	Muntinlupa City	100.00
GEA Process Engineering (Philippines) Inc.	Muntinlupa City	100.00
GEA Westfalia Separator Phils. Inc.	Muntinlupa City	100.00
Poland		
GEA Farm Technologies Sp. z o.o.	Bydgoszcz	100.00
GEA Food Solutions Poland Sp. z o.o.	Warsaw	100.00
GEA Process Engineering Sp. z o.o.	Warsaw	100.00
GEA Refrigeration Poland Sp. z o.o.	Gdynia	100.00
GEA Tuchenhagen Polska sp. z o.o.	Koszalin	100.00
GEA Westfalia Separator Polska Sp. z o.o.	Warsaw	100.00
Rumania		
GEA Refrigeration Romania S.R.L.	Cluj-Napoca	100.00
Russian Federation		
OOO GEA Farm Technologies Rus	Moscow	100.00
OOO GEA Refrigeration RUS	Moscow	100.00
Singapore		
GEA Process Engineering Pte. Ltd.	Singapore	100.00
GEA Westfalia Separator (S.E.A.) PTE. LTD.	Singapore	100.00
Slovenia		
GEA Vipoll, Oprema za industrijo tekočin d.o.o.	Križevci pri Ljutomeru	100.00
South Africa		
GEA Africa (Pty) Ltd.	Midrand	100.00
South Korea		
GEA Korea Ltd.	Seoul	100.00

	Head Office	Shares in %
Spain		
GEA Farm Technologies Ibérica S.L.	Alcobendas	100.00
GEA Process Engineering S.A.	Alcobendas	100.00
GEA Westfalia Separator Ibérica, S.A.	Alcobendas	100.00
Sweden		
GEA Sweden AB	Mölndal	100.00
Switzerland		
GEA Aseptomag AG	Kirchberg	100.00
GEA Aseptomag Holding AG	Kirchberg	100.00
GEA Food Solutions Switzerland AG	Kirchberg	100.00
GEA Suisse AG	Kirchberg	100.00
Taiwan		
GEA Process Engineering Taiwan Ltd.	Taipeh	100.00
Thailand		
GEA (Thailand) Co., Ltd.	Bangkok	99.9994
Turkey		
GEA PROSES MÜHENDİSLİK SANAYİ VE TİCARET LİMİTED ŞİRKETİ	Izmir	100.00
GEA Westfalia Separator Sanayi ve Ticaret Ltd. Sti.	Izmir	100.00
Tasfiye Halinde GEA Farm Technologies Tarim Ekip.Mak. Kim.Tek.Dan.San.Tic.Ltd.Sti.	Izmir	100.00
United Arab Emirates		
GEA Middle East FZE	Dubai	100.00
PPME Middle East FZE i.L.	Dubai	100.00
USA		
GEA Farm Technologies, Inc.	Romeoville	100.00
GEA Food Solutions North America, Inc.	Frisco	100.00
GEA Mechanical Equipment US, Inc.	Northvale	100.00
GEA North America, Inc.	Wilmington	100.00
GEA Systems North America LLC	Columbia	100.00
Niro Sterner, Inc.	Columbia	100.00
Pavan U.S.A., Inc.	Emigsville	100.00
Vietnam		
GEA Vietnam Co., Ltd.	Ho-Chi-Minh-City	100.00

	Head Office	Shares in %
Non-consolidated subsidiaries		
Algeria		
Global Engineering Alliance service Algérie GEA EURL	El Mohammedia	100.00
Angola		
GEA Angola Sales & Services, Lda.	Talatona	100.00
Australia		
Dairy Technology Services Pty. Ltd.	Kyabram	100.00
Bulgaria		
GEA EEC Bulgaria EOOD	Sofia	100.00
Chile		
GEA Farm Technologies Chile SpA	Osorno	100.00
GEA Process Engineering Chile S.A.	Santiago de Chile	100.00
Tecno-Leche S.A.	Osorno	100.00
China		
Beijing Tetra Laval Food Machinery Co., Ltd. i.L.	Beijing	90.00
BOS Homogenisers Asia Co.,Ltd.	Shanghai	100.00
Croatia		
GEA Farm Technologies Croatia d.o.o.	Zagreb	100.00
Czech Republic		
GEA Westfalia Separator CZ s.r.o.	Prague	100.00
France		
GEA Tuchenhagen France SARL	Strasbourg	100.00
Hervé Huon SARL	Ploigneau	100.00
Germany		
GEA Beteiligungsgesellschaft I mbH	Düsseldorf	100.00
GEA Beteiligungsgesellschaft III mbH	Düsseldorf	100.00
GEA MGL GmbH	Düsseldorf	100.00
Sachtleben Bergbau Verwaltungsgesellschaft mit beschränkter Haftung	Lennestadt	100.00
Twiste Copper GmbH	Lennestadt	100.00
Great Britain		
Breconcherry Ltd.	Milton Keynes	100.00
GEA Barr-Rosin Ltd.	Warrington	100.00

	Head Office	Shares in %
Milfos UK Ltd.	Halesowen	100.00
Venture Dairy Services Ltd.	Warminster	100.00
Greece		
GEA Westfalia Separator Hellas A.E. i.L.	Athens	100.00
Hungary		
GEA Process Engineering CEE Kft.	Budaörs	100.00
India		
LL Plant Engineering (India) Pvt. Ltd.	Mumbai Maharashtra	100.00
Ireland		
GEA Farm Technologies (Ireland) Ltd.	Ballincollig	100.00
Italy		
Bellucci Orlando E C. S.r.l.	Modena	100.00
Niederlande		
Melktechniek West B.V.	Alphen aan den Rijn	100.00
New Zealand		
GEA Process Engineering Ltd.	Hamilton	100.00
Nigeria		
GEA West Africa Ltd.	Lagos	100.00
Rumania		
GEA Farm Technologies România S.R.L.	Cluj-Napoca	100.00
GEA Westfalia Separator Romania S.R.L.	Cluj-Napoca	100.00
Russian Federation		
Wilarus OOO	Kolomna	100.00
Saudi-Arabien		
GEA Arabia Ltd.	Riyadh	100.00
Serbia		
GEA EEC Serbia d.o.o. Beograd (Zemun)	Belgrade	100.00
Singapore		
KET Marine Asia Pte. Ltd.	Singapore	100.00
Slovakia		
GEA Farm Technologies Slovakia spol. s.r.o.	Piestany	100.00
Ukraine		
DE „GEA Ukraine“	Kiev	100.00
GEA Food Solutions Ukraine LLC i.L.	Kiev	100.00
GEA Grasso TOV	Kiev	100.00
GEA Ukraine LLC	Bila Zerkva	100.00
Uruguay		
Balterin S.A.	Montevideo	100.00
Crismil S.A.	Montevideo	100.00

	Head Office	Shares in %
Joint Ventures		
Germany		
Merton Wohnprojekt GmbH	Frankfurt/Main	50.00
Japan		
GEA ORION Farm Technologies Co., Ltd.	Nagano	49.00
United Arab Emirates		
GRADE Grasso Adearest Ltd.	Dubai	50.00
GRADE Refrigeration LLC	Sharjah	49.00

	Head Office	Shares in %
Other equity investments under section 313(2) no. 4 of the HGB		
Germany		
Bauverein Oelde GmbH	Oelde	35.50

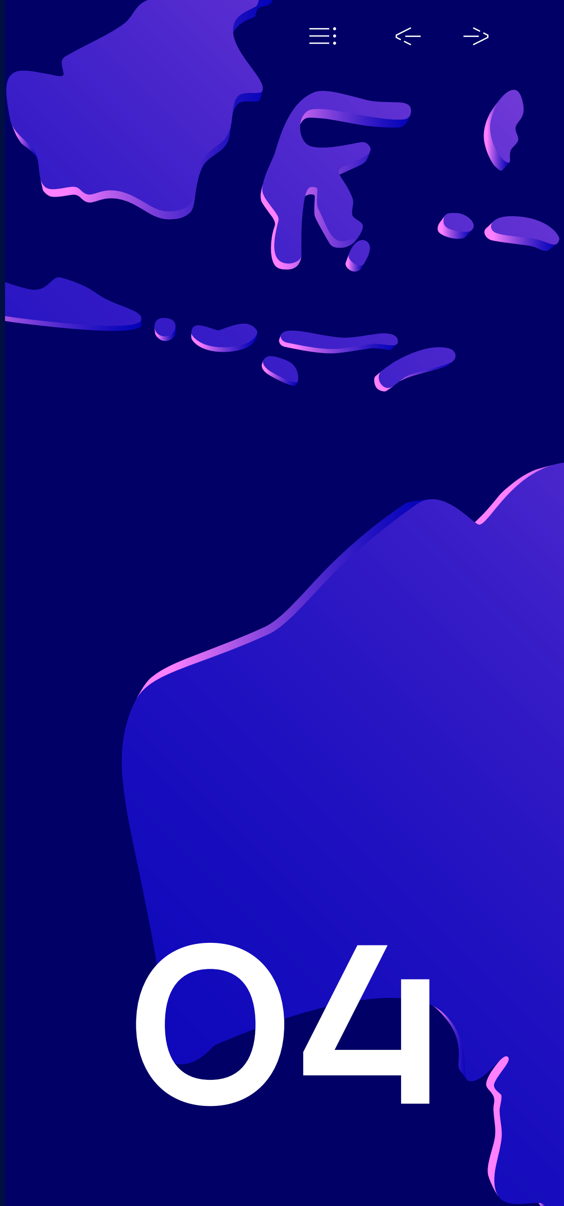
*) In accordance with section 264 (3) and 264b of the HGB the consolidated subsidiaries are exempted from the duty to comply with the supplementary accounting, auditing and publication requirements applicable to corporations and certain partnerships

Düsseldorf, March 5, 2024

The Executive Board

Stefan Klebert   Bernd Brinker   Johannes Giloth

FURTHER INFORMATION



04

Independent Auditor‘s Report

To GEA Group Aktiengesellschaft, Düsseldorf

Report on the Audit of the Consolidated Financial Statements and of the Combined Group Management Report

Opinions

We have audited the consolidated financial statements of GEA Group Aktiengesellschaft, Düsseldorf and its subsidiaries (the Group), which comprise the consolidated balance sheet as of December 31, 2023, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated cash flow statement for the financial year from January 1 to December 31, 2023, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the management report of the Company and the Group (hereinafter the „combined group management report“) of GEA Group Aktiengesellschaft for the reporting year from January 1 to December 31, 2023.

In accordance with German legal requirements, we have not audited the content of those components of the combined group management report specified in the „Other Information“ section of our auditor‘s report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as of December 31, 2023, and of its financial performance for the financial year from January 1 to December 31, 2023, and
- the accompanying combined group management report as a whole provides an appropriate view of the Group‘s position. In all material respects, this combined group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the combined group management report does not cover the content of those components of the combined group management report specified in the „Other Information“ section of the auditor‘s report.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the combined group management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the combined group management report in accordance with Section 317 HGB and the EU Audit Regulation No 537/2014 (referred to subsequently as „EU Audit Regulation“) and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the „Auditor‘s Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Group Management Report“ section of our auditor‘s report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2)(f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the combined group management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1 to December 31, 2023. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Testing the goodwill of the Food & Healthcare Technologies Division (FHT) for impairment

Please refer to note 2 in the notes to the consolidated financial statements for information on the accounting policies applied and the assumptions used. Disclosures on the value of goodwill can be found under note 6.2.

THE FINANCIAL STATEMENT RISK

Goodwill totaled EUR 1,476.1 million as of December 31, 2023, of which EUR 202.6 million was attributable to the FHT segment. Overall, at 24.8% of total group assets, goodwill represents a significant amount of the assets.

Goodwill is tested for impairment annually on segment level (on division level at GEA). Should there be any intra-year indications of impairment, goodwill is then also tested ad hoc for impairment during the year. For this purpose, the carrying amount is compared to the recoverable amount of the segments. If the carrying amount exceeds the recoverable amount, this indicates a requirement for impairment. The recoverable amount is the higher of fair value less costs to sell and value in use of the segments. The effective date for the impairment test is October 31, 2023.

As a result of the impairment test performed, GEA did not identify any impairment.

Impairment testing of goodwill is complex and based on a range of assumptions that require judgment. These include the expected business and earnings performance of the FHT Division for the next three years and the discount rate used.

There is the risk for the consolidated financial statements that an existing need to recognize impairment losses is not identified. There is also the risk that the related disclosures in the notes are not appropriate or incomplete.

OUR AUDIT APPROACH

We obtained a detailed understanding of the business planning process. GEA has implemented controls to ensure business planning's appropriateness. We assessed the design, establishment and effectiveness of selected controls. With the involvement of our valuation experts, we assessed the appropriateness of the GEA's key assumptions and calculation methods used for testing the goodwill of the FHT Division for impairment. For this purpose, we discussed and validated the expected business and earnings development with those responsible for planning. We also reconciled this information with other internally available forecasts and the budget prepared by the Executive Board and approved by the Supervisory Board and with the acknowledged medium-term planning. In addition, we assessed the consistency of assumptions with external market assessments.

We also confirmed the accuracy of the GEA's previous forecasts by comparing the budgets of previous financial years with actual results and by analyzing deviations. We compared the assumptions and data underlying the cost of capital with our own estimates and publicly available data.

To assess the methodically and mathematically correct implementation of the valuation method, we verified the Company's valuation using our own calculations and analyzed deviations. Furthermore, we verified that between the effective date for impairment testing and the reporting date there were no indications of a need to recognize impairment losses.

Finally, we assessed whether the disclosures in the notes regarding the impairment of goodwill were complete and appropriate.

OUR OBSERVATIONS

The calculation method used for impairment testing of goodwill is appropriate and in line with the accounting policies to be applied. GEA's assumptions and data used for measurement are appropriate.

The corresponding disclosures in the notes are complete and appropriate.

<ins>Recognition of revenue from construction contracts</ins>

Please refer to the explanatory notes under note 2 for the accounting policies applied. Disclosures on revenue from construction contracts and construction contracts with credit and debit balances vis-à-vis customers can be found under note 8.1 in the notes to the consolidated financial statements.

THE FINANCIAL STATEMENT RISK

In financial year 2023, revenue in the amount of EUR 2,220.5 million was generated from construction contracts. As of December 31, 2023, the gross amount due from customers for contract work (contract assets) was EUR 374.0 million and the gross amount due to customers for contract work (contract liabilities) was EUR 870.3 million.

Contract revenue and results of construction contracts, which are to be recognized over time according to IFRS 15.35, are recognized pursuant to IFRS 15.B18 by reference to the stage of completion. The stage of completion is determined as the proportion that contract costs incurred for work performed to date bear to the estimated total contract costs (cost to cost method). When it is probable that total contract costs will exceed total contract revenue, this loss is to be recognized as a provision for onerous contracts according to the rules set forth under IAS 37.

Determining the revenue from construction contracts that can be recognized is complex and requires estimates, especially with regard to the total contract cost to be estimated for establishing the stage of completion. The risk for the consolidated financial statements of GEA Group Aktiengesellschaft is that the revenue and realized results of construction contracts are inaccurately allocated to financial years or that onerous construction contracts are not recognized in time.

OUR AUDIT APPROACH

We assessed the procedure for estimating contract costs, the method for determining stage of completion as well as the design, establishment and, where applicable, the effectiveness of controls to ensure proper planning of the entire contract costs.

We performed the following audit procedures for construction contracts specifically selected on the basis of risk (list not exhaustive):

- interviewing GEA staff involved in the project, including on estimates of the overall contract costs, risks involved and status of the projects,
- reconciling the actual cost allocated to the contracts with internal cost schedules and external documents,
- critical review of assumptions used for estimates of total contract costs, also by analyzing project progress to date and any deviations from the budget,
- assessment of the computational accuracy of the stage of completion determined as well as any losses anticipated and also the proper accounting treatment of construction contracts and possible provisions for onerous contracts under IAS 37.

OUR OBSERVATIONS

GEA's accounting treatment of construction contracts and the corresponding provisions for onerous contracts is appropriate. The assumptions underlying the accounting for construction orders are appropriate overall.

Other Information

Management and/or the Supervisory Board are/is responsible for the other information. The other information comprises the following components of the combined group management report, whose content was not audited:

- the Group's non-financial statement included in the combined group management report, and
- the combined corporate governance statement for the Company and Group included in the combined group management report, and
- information extraneous to the combined group management report and marked as unaudited.

The other information also includes the remaining parts of the annual report. The other information does not include the consolidated financial statements, the combined group management report information audited for content and our auditor's report thereon.

Our opinions on the consolidated financial statements and on the combined group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the combined group management report information audited for content or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Combined Group Management Report

Management is responsible for the preparation of consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, management is responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, management is responsible for the preparation of the combined group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the combined group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this combined group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the combined group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the combined group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the combined group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the combined group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.
- Evaluate the consistency of the combined group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by management in the combined group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the actions taken or safeguards applied to eliminate independence threats.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Combined Group Management Report Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB

We have performed assurance work in accordance with Section 317 (3a) HGB to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the combined group management report (hereinafter the „ESEF documents“) contained in the electronic file „geagroup-2023-12-31-de.zip“ (SHA256-Hashwert: 2835c7e732829343402a67015d563ace479c2a3fec59857161021853ac907b21) made available and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format („ESEF format“). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the consolidated financial statements and the combined group management report into the ESEF format and therefore relates neither to the information contained in these renderings nor to any other information contained in the file identified above.

In our opinion, the rendering of the consolidated financial statements and the combined group management report contained in the electronic file made available, identified above and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management report for the financial year from January 1 to December 31, 2023, contained in the „Report on the Audit of the Consolidated Financial Statements and the Combined Group Management Report“ above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the file identified above.

We conducted our assurance work on the rendering of the consolidated financial statements and the combined group management report contained in the file made available and identified above in accordance with Section 317 (3a) HGB and the IDW Assurance Standard: Assurance Work on the Electronic Rendering of Financial Statements and Management Reports Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB (IDW AsS 410 (06.2022)) and the International Standard on Assurance Engagements 3000 (Revised). Our responsibility in accordance therewith is further described below. Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QMS 1) (09.2022).

The Company's management is responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the combined group management report in accordance with Section 328 (1) sentence 4 item 1 HGB and for the tagging of the consolidated financial statements in accordance with Section 328 (1) sentence 4 item 2 HGB.

In addition, the Company's management is responsible for such internal control that they have considered necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB for the electronic reporting format.

The Supervisory Board is responsible for overseeing the process of preparing the ESEF documents as part of the financial reporting process.

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. We exercise professional judgment and maintain professional skepticism throughout the assurance work. We also

- Identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.
- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.
- Evaluate the technical validity of the ESEF documents, i.e. whether the file made available containing the ESEF documents meets the requirements of the Commission Delegated Regulation (EU) 2019/815, as amended as of the reporting date, on the technical specification for this electronic file.
- Evaluate whether the ESEF documents provide an XHTML rendering with content equivalent to the audited consolidated financial statements and the audited combined group management report.
- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Commission Delegated Regulation (EU) 2019/815, as amended as of the reporting date, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Further information pursuant to Article 10 of the EU Audit Regulation
We were elected as group auditor at the Annual General Meeting on April 27, 2023. We were engaged by the Supervisory Board on June 22, 2023. We have been the group auditor of GEA Group Aktiengesellschaft, without interruption since financial year 2011.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the Audit Committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

Other matter – Use of the Auditor's Report

Our auditor´s report must always be read together with the audited consolidated financial statements and the audited combined group management report as well as the examined ESEF documents. The consolidated financial statements and combined group management report converted to the ESEF format – including the versions to be entered in the company register – are merely electronic renderings of the audited consolidated financial statements and the audited combined group management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the examined ESEF documents made available in electronic form.

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Dr. Philipp Ohmen.

Düsseldorf, March 5, 2024

KPMG AG
Wirtschaftsprüfungsgesellschaft

[signature] Dr. Zeimes
Wirtschaftsprüfer
[German Public Auditor]

[signature] Dr. Ohmen
Wirtschaftsprüfer
[German Public Auditor]

Independent assurance practitioner's report

To the Supervisory Board of GEA Group Aktiengesellschaft, Düsseldorf

We have performed a limited assurance engagement on the combined non-financial group statement of GEA Group Aktiengesellschaft, Düsseldorf (hereinafter "GEA" or the "parent company") for the period from January 1 to December 31, 2023 (hereinafter the "consolidated non-financial statement") included in section "Non-financial Group Statement" of the combined group management report.

Furthermore, we have performed a reasonable assurance engagement on the KPIs "Energy consumption" and "Scope 1 and 2 greenhouse gas emissions" for the period from January 1 to December 31, 2023.

Responsibilities of Management

Management of the parent company is responsible for the preparation of the non-financial statement in accordance with Sections 315c in conjunction with 289c to 289e HGB "Handelsgesetzbuch": German Commercial Code and Article 8 of REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of June 18, 2020 on establishing a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (hereinafter the "EU Taxonomy Regulation") and the Delegated Acts adopted thereunder, as well as for making their own interpretation of the wording and terms contained in the EU Taxonomy Regulation and the delegated acts adopted thereunder as set out in section Disclosures on the European Union Taxonomy Regulation of the consolidated non-financial statement.

This responsibility includes the selection and application of appropriate non-financial reporting methods and making assumptions and estimates about individual non-financial disclosures of the group that are reasonable in the circumstances. Furthermore, management is responsible for such internal control as they consider necessary to enable the preparation of a consolidated non-financial statement that is free from material misstatement, whether due to fraud or error.

The EU Taxonomy Regulation and the Delegated Acts issued thereunder contain wording and terms that are still subject to considerable interpretation uncertainties and for which clarifications have not yet been published in every case. Therefore, management has disclosed their interpretation of the EU Taxonomy Regulation and the Delegated Acts adopted thereunder in section Disclosures on the European Union Taxonomy Regulation of the consolidated non-financial statement. They are responsible for the defensibility of this interpretation. Due to the immanent risk that indeterminate legal terms may be interpreted differently, the legal conformity of the interpretation is subject to uncertainties.

Independence and Quality Assurance of the Assurance Practitioner's firm

We have complied with the independence and quality assurance requirements set out in the national legal provisions and professional pronouncements, in particular the Professional Code for German Public Auditors and Chartered Accountants (in Germany) and the IDW Standard on Quality Management: Requirements for Quality Management in Audit Firms (IDW QMS 1 (09.2022)).

Responsibility of the Assurance Practitioner

Our responsibility is to express a conclusion based on our assurance engagement

- with limited assurance on the consolidated non-financial statement in accordance with Sections 315c in conjunction with 289c to 289e HGB “Handelsgesetzbuch”: German Commercial Code and EU Taxonomy Regulation and the Delegated Acts adopted thereunder, as well as for making their own interpretation of the wording and terms contained in the EU Taxonomy Regulation and the delegated acts adopted thereunder as set out in section Disclosures on the European Union Taxonomy Regulation and
- with reasonable assurance on the KPIs “Energy consumption” and “Scope 1 and 2 greenhouse gas emissions” for the period from January 1 to December 31, 2023.

Limited Assurance engagement

We conducted our assurance engagement for the consolidated non-financial statement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised): “Assurance Engagements other than Audits or Reviews of Historical Financial Information” issued by the IAASB. This standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether any matters have come to our attention that cause us to believe that the company's non-financial statement, are not prepared, in all material respects, in accordance with Sections 315c in conjunction with 289c to 289e HGB and the EU Taxonomy Regulation and the Delegated Acts issued thereunder as well as the interpretation by management disclosed in section Disclosures on the European Union Taxonomy Regulation of the consolidated non-financial statement.

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

In the course of our assurance engagement we have, among other things, performed the following assurance procedures and other activities:

- Inquiries of group-level personnel who are responsible for the materiality analysis in order to understand the processes for determining material topics and respective reporting boundaries for GEA
- A risk analysis, including media research, to identify relevant information on GEA's sustainability performance in the reporting period
- Evaluation of the process for the identification of taxonomy-eligible and taxonomy-aligned economic activities and the corresponding disclosures in the consolidated non-financial statement
- Evaluation of the design and the implementation of systems and processes for the collection, processing and monitoring of disclosures on environmental, employee and social matters, respect for human rights, combating corruption and bribery and indicators required by the EU Taxonomy Regulation, including consolidation of data
- Inquiries of group-level personnel who are responsible for determining disclosures on concepts, due diligence processes, results and risks, performing internal control functions and consolidating disclosures
- Inspection of selected internal and external documents
- Analytical procedures for the evaluation of data and of the trends of quantitative disclosures as reported at group level by all sites
- Understanding of estimated data and assumptions made in this context
- Evaluation of local data collection, validation and reporting processes as well as the reliability of reported data based on a sample of the sites in GEA Farm Technologies Inc, Romeoville Weber Rd. (USA) and V.AL.IN. srl Veneta Alimenti Innovativi - Alpago (Italy)
- Assessment of the overall presentation of the disclosures

In determining the disclosures in accordance with Article 8 of the EU Taxonomy Regulation, management is required to interpret undefined legal terms. Due to the immanent risk that undefined legal terms may be interpreted differently, the legal conformity of their interpretation and, accordingly, our assurance engagement thereon are subject to uncertainties.

Reasonable Assurance engagement

For the KPIs "Energy consumption" and "Scope 1 and 2 greenhouse gas emissions", we conducted our assurance engagement in accordance with the International Standard on Assurance Engagements ISAE 3000 (Revised) as reasonable assurance engagement. This standard requires that we have to comply with our professional duties and that we plan and perform the assurance engagement in such a way that we, respecting the principle of materiality, reach our conclusion with a reasonable level of assurance. The selection of the assurance procedures is subject to the own professional judgment of the assurance practitioner.

In addition to the procedures described above, we have performed the following main procedures on the key figures "Energy consumption" and "Scope 1 and 2 greenhouse gas emissions":

- Inquiries of relevant personnel related to non-financial reporting and evaluation of the established data collection, validation and reporting processes by conducting process interviews and reviewing relevant process documentation
- Assessing the suitability of the design and implementation of established systems and controls and performing audit procedures to assess the effectiveness of the established non-financial control system
- Perform substantive audit procedures, in particular analytical procedures and inspection of internal and external evidence, to evaluate the suitability of the selected disclosures in the non-financial statement on the basis of a risk-based and random selection of sample elements
- Assessment of the suitability of the methods, assumptions and data used with regard to estimated values

In our opinion, we obtained sufficient and appropriate evidence for reaching conclusions on our assurance engagement.

Assurance Opinion

Based on the assurance procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the consolidated non-financial statement of GEA Group Aktiengesellschaft, Düsseldorf, for the period from January 1 to December 31, 2023 has not been prepared, in all material respects, in accordance with Sections 315c in conjunction with 289c to 289e HGB and the EU Taxonomy Regulation and the Delegated Acts issued thereunder as well as the interpretation by management as disclosed in section Disclosures on the European Union Taxonomy Regulation of the combined non-financial statement.

Based on the assurance procedures performed and the evidence obtained, in our opinion the KPIs "Energy consumption" and "Scope 1 and 2 greenhouse gas emissions" of GEA Group Aktiengesellschaft, Düsseldorf, for the period from January 1 to December 31, 2023 have been prepared in all material respects in accordance with Sections 315c in conjunction with 289c to 289e HGB of GEA Group Aktiengesellschaft, Düsseldorf.

Restriction of Use

This assurance report is solely addressed to of the Supervisory Board of GEA Group Aktiengesellschaft, Düsseldorf.

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

Düsseldorf, March 5, 2024

KPMG AG
Wirtschaftsprüfungsgesellschaft

Stauder
Wirtschaftsprüfer
[German Public Auditor]

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REMUNERATION REPORT

This Remuneration Report summarizes the principles governing remuneration of the members of the Executive Board and the Supervisory Board. It provides an overview of the system of Executive Board remuneration and explains the objectives of the remuneration system – which has been in force since the beginning of 2021 and has applied to all Executive Board members since the beginning of 2022.

The Remuneration Report also provides individualized and specific information on remuneration awarded and due to current and former members of the GEA Group Aktiengesellschaft Executive Board and Supervisory Board in fiscal year 2023, as well as benefits commitments. Disclosures related to the remuneration of board members comply with the requirements of the German Stock Corporation Act and the applicable German and international accounting standards.

General information on the remuneration of the members of the Executive Board

Acting on the recommendation of the Presiding and Sustainability Committee, the Supervisory Board determines the total remuneration of the individual Executive Board members and resolves the remuneration system applicable to the Executive Board. The Supervisory Board reviews the appropriateness of the remuneration at regular intervals. Criteria for determining the appropriateness of the remuneration include the responsibilities of the individual Executive Board members, their respective personal performance, the business situation, the success and the future prospects of the company, the result of the vote of the last Annual General Meeting on the remuneration report as well as the level of the remuneration compared with peer companies and the remuneration structure in place in other areas of the group.

Effective January 1, 2021, the Supervisory Board adopted the remuneration system that was approved by a majority of 89.54 percent at the Annual General Meeting on April 30, 2021 in accordance with section 120a(1), sentence 1 of the Aktiengesetz (AktG – the German Stock Corporation Act). The remuneration system for Executive Board members was revised to comply with the requirements of the new section 87a of the AktG and the recommendations of the German Corporate Governance Code as amended on December 16, 2019 (GCGC). An important consequence of the revision was the adoption of a new long-term incentive plan for Executive Board members. In addition, the basic remuneration, as well as the target remuneration for the Short Term Incentive (STI) and the Long Term Incentive (LTI) were increased by 20 percent. The contributions to the company pension plan remained unchanged. The remuneration system applies consistently to current Executive Board members since January 1, 2022. Details can be found in this section and are available on the gea.com website under “Company – Investors – Corporate Governance – Remuneration”.*

*) Unaudited information

Principles of the remuneration system

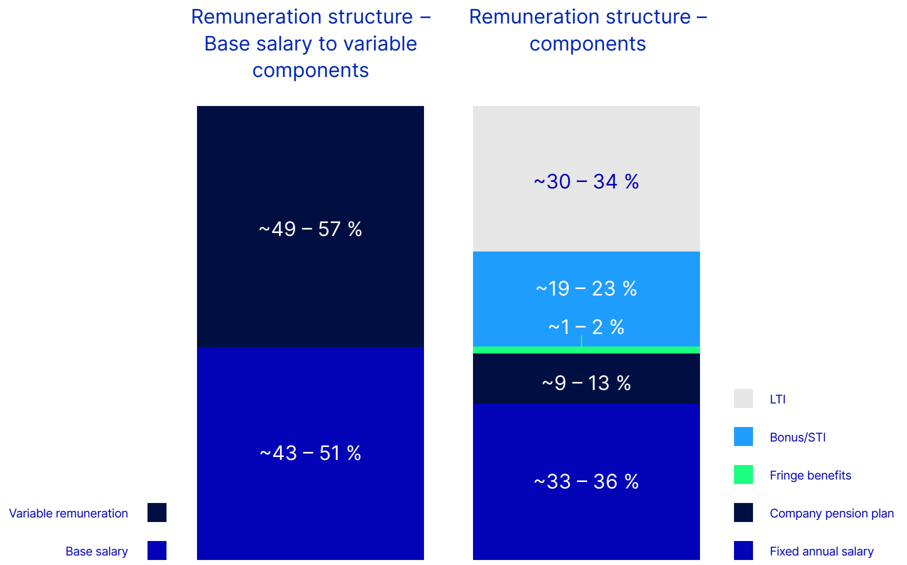
The remuneration system is characterized by the following basic principles:

- **Strategic relevance**: Performance-based remuneration components ensure support for the key objectives of the business strategy, in particular continuous, sustainable and profitable growth.
- **Pay for Performance**: The pay for performance concept is incorporated by linking remuneration to the achievement of predefined and ambitious performance criteria. In addition, malus and clawback provisions are also implemented.
- **Sustainability and the long term orientation**: The promotion of sustainable and long-term development is achieved through sustainability-related and long-term-oriented performance criteria with significant weighting. In addition, the sustainability aspect is emphasized through the comparative analysis with DAX 50 ESG companies.
- **Long-term shareholder interests**: Sustainable value growth is taken into account through the four-year term and the long-term incentive's (LTI) strong share orientation, as well as share ownership guidelines.
- **Consideration of remuneration and employment conditions of the employees**: When determining the remuneration of the Executive Board, its appropriateness in comparison to senior management and the workforce as a whole is also examined. In addition, employee satisfaction as an expression of compensation and employment conditions of the employees influences the amount of the variable remuneration of the Executive Board.
- **Reasonable linkage between executive and employee remuneration**: In the case of variable remuneration, care is taken to achieve a consistent steering and incentive effect between the Executive Board, senior management and employees.
- **Regulatory conformity**: The remuneration system for the Executive Board complies with the regulations of the German Stock Corporation Act and takes into account the recommendations of the GCGC in the version applicable at the time.

Target total remuneration under the remuneration system

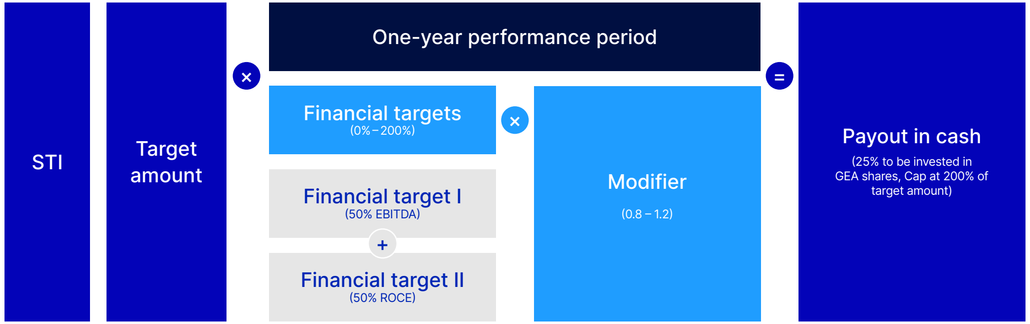
The target total remuneration of the Executive Board members is composed of non-performance-related and performance-related components as follows:

Relative proportion of the components in the total target remuneration



The non-performance-related components comprise a fixed annual salary, a company pension plan (bAV) and fringe benefits.

The performance-related components comprise the bonus or short-term incentive (STI) and long-term incentive (LTI). The STI is structured as a target bonus system, which is paid out based on the financial performance criteria EBITDA (earnings before interest, taxes, depreciation and amortization) and ROCE (return on capital employed), each adjusted for restructuring expenses and effects from acquisitions and divestments (so called M&A-effects) and a criteria-based modifier, which takes into account the collective and individual performance of the Executive Board and its members, respectively. It is composed as follows:



The LTI – the second performance-related component – is structured as a Performance Share Plan, which is paid out based on the relative total shareholder return (relative TSR), strategic targets (generally ESG targets) and the company's share price performance. It is composed as follows:

General information on the remuneration of the members of the Supervisory Board

In principle, the remuneration of the Supervisory Board members consists solely of fixed remuneration. It does not include a performance-related component.

At the Annual General Meeting of April 27, 2023, the remuneration of Supervisory Board members was increased retroactively to January 1, 2023, and an amended version of section 15 of the Articles of Association was adopted by a majority of 99.57 percent.

Pursuant to section 15(1) of the Articles of Association, each Supervisory Board member receives fixed annual remuneration of EUR 70 thousand payable after the end of each fiscal year, in addition to the reimbursement of their expenses. The Chairman of the Supervisory Board receives two-and-a-half times and his deputy one-and-a-half times this amount. In accordance with section 15(2) of the Articles of Association, members of the Presiding and Sustainability Committee and the Audit and Cybersecurity Committee (former Audit Committee) each receive an additional EUR 45 thousand and members of the Innovation and Product Sustainability Committee an additional EUR 35 thousand. The chairs of the committees receive twice the respective amount. No separate remuneration is paid to members of the Mediation Committee or the Nomination Committee. Members who join or leave the Supervisory Board and/or its committees during the year only receive a pro-rata amount of remuneration for the duration of their membership. After the end of the fiscal year – pursuant to section 15(3) of the Articles of Association – the Supervisory Board members also receive an attendance fee of EUR 1 thousand for each meeting of the Supervisory Board, the Presiding and Sustainability Committee, the Audit and Cybersecurity Committee or the Innovation and Product Sustainability Committee which they attend. In fiscal year 2023, the Supervisory Board held eight meetings, the Presiding and Sustainability Committee met six times, the Audit and Cybersecurity Committee convened on four occasions, the Nomination Committee held four meetings while the Innovation and Product Sustainability Committee met twice.

In fiscal year 2023, the Supervisory Board issued a recommendation for the first time that Supervisory Board members commit voluntarily to purchase GEA shares. The majority of Supervisory Board members have voluntarily committed, with effect from fiscal year 2023, each to use 25 percent of their undisbursed (gross) remuneration (excluding attendance fees) to acquire GEA shares and to hold these until they leave the Supervisory Board. This purchase obligation applies until a total volume equivalent to a full year's remuneration of the respective Supervisory Board member is reached.

Overview of the past fiscal year

Personnel

There has been a change in the composition of the Executive Board compared with the previous year. Marcus A. Ketter passed away suddenly on August 6, 2023. As a result, the Supervisory Board appointed Bernd Brinker as a member of the Executive Board and as Chief Financial Officer (CFO) with effect from October 16, 2023, until October 15, 2024 at its meeting on September 20, 2023.

In fiscal year 2023 there were personnel changes on the company's Supervisory Board, which comprises twelve members. Prof. Hans Dieter Kempf's position as shareholder representative on the Supervisory Board was confirmed until the 2026 Annual General Meeting by his election at the Annual General Meeting of April 27, 2023. Jörg Kampmeyer resigned from his position for personal reasons with effect from August 31, 2023. Andreas Renschler was appointed by the court as his replacement on the Supervisory Board with effect from September 1, 2023.

Key figures for fiscal year 2023

For more information, please refer to the Report on Economic Position within the Combined Group Management Report.

Consideration of the Annual General Meeting resolution regarding last year's remuneration report in accordance with section 162(1) sentence 2 no. 6 of the AktG

On April 27, 2023, the Annual General Meeting approved last year's remuneration report by a majority of 93.75 percent. Consequently, there was no reason to call into question the remuneration system that was approved by a majority of 89.54 percent at the Annual General Meeting on April 30, 2021, in accordance with section 120a(1), sentence 1 AktG, its implementation or the manner in which it is reported.

Remuneration of the members of the Executive Board

Remuneration awarded or due in 2023 (and 2022)

The total remuneration of the Executive Board members of GEA Group Aktiengesellschaft in fiscal year 2023 (current members Stefan Klebert, Bernd Brinker and Johannes Giloth as well as former member Marcus A. Ketter) amounted to EUR 9,085,845. This comprised both an amount of EUR 2,815,401 for fixed annual salaries and an amount of EUR 6,197,241 for variable remuneration. As in previous fiscal years, the company did not grant any loans to members of the Executive Board in fiscal year 2023. The option to reclaim variable remuneration components was not exercised in the reporting period.

Marcus A. Ketter's monthly base salary up to and including November 2023 along with entitlements to pension benefits were disbursed to his surviving dependents in the form of a one-off payment. The current LTI tranches were paid out in October 2023 in the amount of the cumulative grant amount to the surviving dependents of Marcus A. Ketter, with the grant amount for the 2023 tranche being reduced pro rata temporis. The STI will be disbursed, also reduced pro rata temporis, in March 2024.

In fiscal year 2022, the total remuneration of the Executive Board members (Stefan Klebert, Marcus. A. Ketter and Johannes Giloth) amounted to EUR 9,382,822. This comprised both an amount of EUR 2,976,000 for fixed annual salaries and an amount of EUR 6,311,924 for variable remuneration.

For purposes of section 162(1) sentence 2 no. 1 of the AktG, remuneration is deemed to have been awarded in the fiscal year in which the work (one or more years) on which the remuneration concerned is based was performed in full (vesting-oriented view). Remuneration is due when an unfulfilled legal obligation to pay such remuneration exists. In accordance with section 162 of the AktG, remuneration components are stated as of the earlier of the date on which the remuneration is awarded or due. Amounts attributable to the LTI and the bonus or STI are thus reported in the fiscal year in which the service period ends. In the past fiscal year, the service period ended for the 2023 tranche of the LTI, which was therefore fully vested in fiscal year 2023. The LTI and the long-term share price component (2012 remuneration system) are paid out in March of the fiscal year after the end of the three-year or four-year performance period following a resolution of the Supervisory Board establishing the target achievement. Differences between the expected payout amount at the time of full vesting and the actual amount paid out after the end of the performance period are disclosed in the year of payment. Thus, in fiscal year 2027, the corresponding difference for the 2023 tranche will be included in the remuneration to be disclosed.

Target total remuneration and actual remuneration

The following tables show – in each case for the reporting period and the prior year, each in individualized form and each broken down into fixed, non-performance-related and variable, performance-related components – the amount of the target total remuneration of the current Executive Board members and the actual remuneration of the current and former Executive Board members. A detailed description of the remuneration system applicable and applied to all current Executive Board members in fiscal year 2023 can be found on gea.com website under "Company – Investors – Corporate governance – Remuneration".*

*) Unaudited information

Target total remuneration of the current Executive Board members:

(in EUR)			Base salary			Variable components		**Target total remuneration**
	Date joined/ appointed until	Current position	Fixed annual salary	Fringe benefits[2]	Company pension plan	Bonus/STI	LTI	
Executive Board members								
Stefan Klebert	Nov. 15, 2018/ Dec. 31, 2026	CEO	1,440,000	25,511	400,000	864,000	1,296,000	**4,025,511**
Previous year			1,440,000	32,758	400,000	864,000	1,296,000	**4,032,758**
Bernd Brinker[1]	Oct. 16, 2023/ Oct. 15, 2024	CFO	790,000	27,931	250,000	460,000	688,000	**2,215,931**
Previous year			–	–	–	–	–	**–**
Johannes Giloth	Jan. 20, 2020/ Jan. 19, 2028	COO	720,000	32,010	200,000	432,000	648,000	**2,032,010**
Previous year			720,000	33,398	200,000	432,000	648,000	**2,033,398**
Total			**2,950,000**	**85,452**	**850,000**	**1,756,000**	**2,632,000**	**8,273,452**
Previous year			**2,160,000**	**66,156**	**600,000**	**1,296,000**	**1,944,000**	**6,066,156**

1) Target total remuneration for a full financial year.
2) The fringe benefits mainly comprise the value of the use of a company car, accident insurance premiums, and – in individual cases – the reimbursement of costs incurred for travel and accommodation.

Base salary and variable components of the remuneration awarded or due for the Executive Board members in financial year 2023:

(in EUR)			Base salary			Variable components			**Total**
	Date joined/ appointed until	Current position	Fixed annual salary	Fringe benefits[1]	Pro-rata fixed remuneration components	Bonus/STI	LTI[2]	Pro-rata variable fixed remuneration components	
Current Executive Board members									
Stefan Klebert	Nov. 15, 2018/ Dec. 31, 2026	CEO	1,440,000	25,511	30%	1,553,645	1,911,099[3]	70%	**4,930,255**
Previous year			1,440,000	32,758	32%	1,662,250	1,406,810[4]	68%	**4,541,818**
Bernd Brinker	Oct. 16, 2023/ Oct. 15, 2024	CFO	167,575	5,924	36%	174,499	139,156	64%	**487,154**
Previous year			–	–	–	–	–	–	**–**
Johannes Giloth	Jan. 20, 2020/ Jan. 19, 2028	COO	720,000	32,010	30%	776,822	938,167[3]	70%	**2,466,999**
Previous year			720,000	33,398	33%	831,125	681,653	67%	**2,266,176**
Total			**2,327,575**	**63,445**	**30%**	**2,504,966**	**2,988,422**	**70%**	**7,884,408**
Previous year			**2,160,000**	**66,156**	**33%**	**2,493,375**	**2,088,463**	**67%**	**6,807,994**

1) The fringe benefits mainly comprise the value of the use of a company car and accident insurance premiums.
2) The service period for the 2023 tranche of the LTI ended on December 31, 2023; the service period for the 2022 tranche ended on December 31, 2022.
3) In addition to the compensation awarded in fiscal year 2023, the delta between the expected payout amount at the time of full vesting and the actual payout amount after the end of the performance period of the 2020 LTI tranche is included.
4) In addition to the compensation awarded in fiscal year 2022, the delta between the expected payout amount at the time of full vesting and the actual payout amount after the end of the performance period of the 2019 LTI tranche is included.

Base salary and variable components of the remuneration awarded or due for former Executive Board members:

(in EUR)			Base salary			Variable components				Total
	Entry/departure	Last position	Fixed remuneration[1]	Fringe benefits	Pro-rata fixed remuneration components	Bonus/STI	LTI	Long-term share price component	Pro-rata variable remuneration components	
Former Executive Board members										
Marcus A. Ketter	May 5, 2019/ Aug. 6, 2023	Ordinary Executive Board member	487,826	9,758	41%	523,843	180,010[2]	–	59%	**1,201,437**
Previous year			816,000	28,742	33%	942,711	787,375	–	67%	**2,574,828**
Steffen Bersch	Jan. 1, 2016/ Feb. 29, 2020	Ordinary Executive Board member	–	–	–	–	54,034[3]	–	100%	**54,034**
Previous year			–	–	–	–	21,752[3]	–	100%	**21,752**
Martine Snels	Oct. 1, 2017/ Dec. 31, 2019	Ordinary Executive Board member	–	–	–	–	–	–	–	**–**
Previous year			–	–	–	–	–	-636[4]	100%	**-636**
Dr. Helmut Schmale	Apr. 22, 2009/ May 17, 2019	Ordinary Executive Board member	226,141	–	100%	–	–	–	–	**226,141**
Previous year			224,684	–	100%	–	–	–	–	**224,684**
Other previous members and surviving dependents[5]			7,038,587	–	100%	–	–	–	–	**7,038,587**
Previous year			5,113,891	–	100%	–	–	–	–	**5,113,891**
Total			**7,752,554**	**9,758**	**91%**	**523,843**	**234,044**	**–**	**9%**	**8,520,199**
Previous year			**6,154,575**	**28,742**	**78%**	**942,711**	**809,127**	**-636**	**22%**	**7,934,519**

1) The fixed remuneration includes pension payments and – in the event of early departure from the Executive Board – severance payments, as well as, with regard to the previous year's figures, fixed salaries. No severance payments were paid in fiscal years 2022 and 2023.
2) The compensation from the LTI components is attributable to the delta between the expected payout amount at the time of full vesting and the actual (pro rata reduced) payout amount, that will be paid off in March 2024, of the 2020, 2021 ,2022 and 2023 tranche of the LTI.
3) The compensation from the LTI components is attributable to the delta between the expected payout amount at the time of full vesting and the actual payout amount after the end of the performance period of the 2019 or 2020 tranche of the LTI.
4) The compensation from the LTI components is attributable to the delta between the expected payout amount at the time of full vesting and the actual payout amount after the end of the performance period of the 2019 tranche of the long-term share price component. The negative delta results from a target achievement of 99.7%.
5) Individualized disclosure of the remuneration of former Executive Board members and their surviving dependents is omitted for members of the Executive Board who left the company more than ten years ago.

The total remuneration of the current and former Executive Board members for fiscal year 2023 is in line with the remuneration system applicable in the reporting period and the 2012 remuneration system applicable to individual former Executive Board members. The target total remuneration of the current Executive Board members set for the reporting period corresponds in each case to the values and ratios of fixed to variable remuneration components stipulated in the remuneration system. As shown in the following section and in the section "Disclosures relating to share-based remuneration for the period 2021 to 2023," the actual target achievement or the target achievement expected on the basis of the ratios as of December 31, 2023 of the individual variable remuneration components was determined on the basis of the key performance indicators and the target achievement curves defined in accordance with the remuneration system.

Target achievement and modifier multiplier applicable to the 2023 STI

At the Supervisory Board meeting in April 2023, the calibration of the financial performance targets for the bonus or STI 2023 was adjusted for the contribution of the Frozen Food business. For the key performance indicator EBITDA before restructuring expenses and M&A-effects, 100 percent of the target is achieved if EBITDA before restructuring expenses and M&A-effects amounts to EUR 764 million in the fiscal year 2023. The target achievement corridor ranges from EUR 684 million, which would correspond to a target achievement of 0 percent, to EUR 844 million, which would correspond to a target achievement of 200 percent. Linear interpolation is performed between these values. For the key performance indicator ROCE before restructuring expenses and M&A-effects, a target achievement of 100 percent is indicated if the key performance indicator of 29.3 percent is achieved. A ROCE before restructuring expenses and M&A-effects of 33.3 percent would correspond to a target achievement of 200 percent and 25.3 percent would correspond to a target achievement of 0 percent. Linear interpolation is performed between these values.

In the fiscal year 2023, EBITDA before restructuring expenses and adjusted for M&A-effects, totaled EUR 774.6 million, which corresponds to target achievement of 113.5 percent (previous year: 153.8 percent). ROCE in fiscal year 2023, also adjusted for restructuring measures and M&A-effects, amounted to 32.7 percent (previous year: 31.8 percent), equivalent to target achievement of 186.2 percent (previous year: 196 percent). For the 2023 STI, this results in a target achievement level of 149.9 percent (previous year: 174.9 percent).

For the 2023 STI, the Supervisory Board has set a modifier multiplier of 1.2 for Stefan Klebert (previous year: 1.1), 1.2 for Marcus A. Ketter (previous year: 1.1), 1.2 for Johannes Giloth (previous year: 1.1) and 1.1 for Bernd Brinker (previous year: not applicable due to his appointment in 2023), resulting in an overall target achievement level of 179.8 percent (previous year: 192.4 percent). In each case, these multipliers correspond to the average of the individual evaluations of the modifier criteria set by the Supervisory Board beforehand for the members of the Executive Board. The modifier applicable to the 2023 STI was based on the following targets and assessment criteria:

Modifier targets and assessment criteria applicable to the 2023 STI (range: 0.8–1.2)
Innovation: Milestones in the creation of a comprehensive innovation measurement system
Limited discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board
GEA Digital: Successful market launch and scaling of digital services
Limited discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board
Employee turnover/retention: Creating transparency and developing measures
Limited discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board

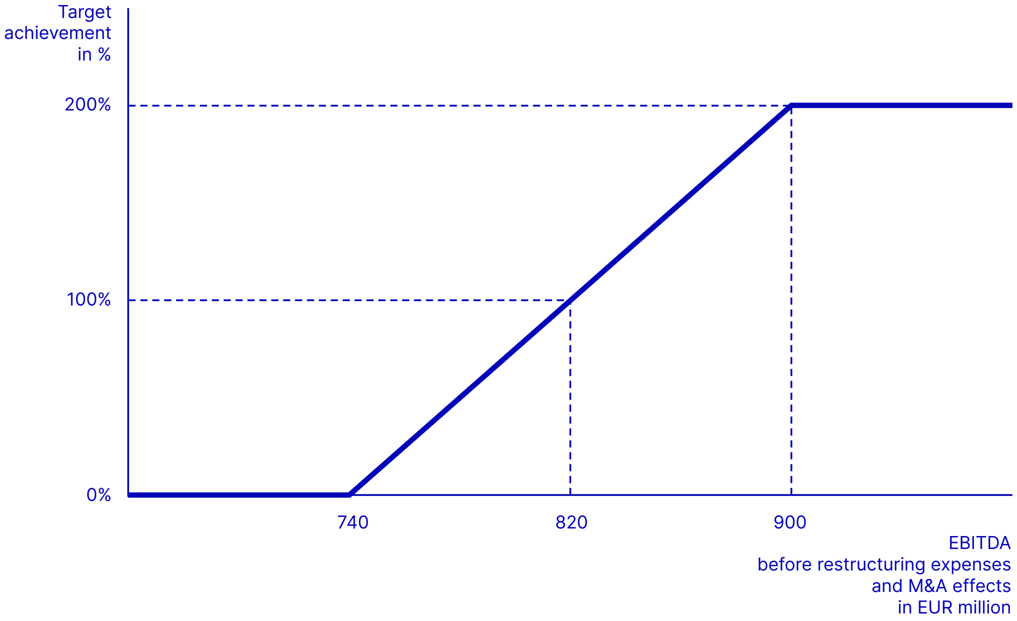
Calibration of financial performance targets and modifier criteria in relation to the 2024 STI

For the 2024 bonus or STI, the Supervisory Board has calibrated the following financial performance targets:

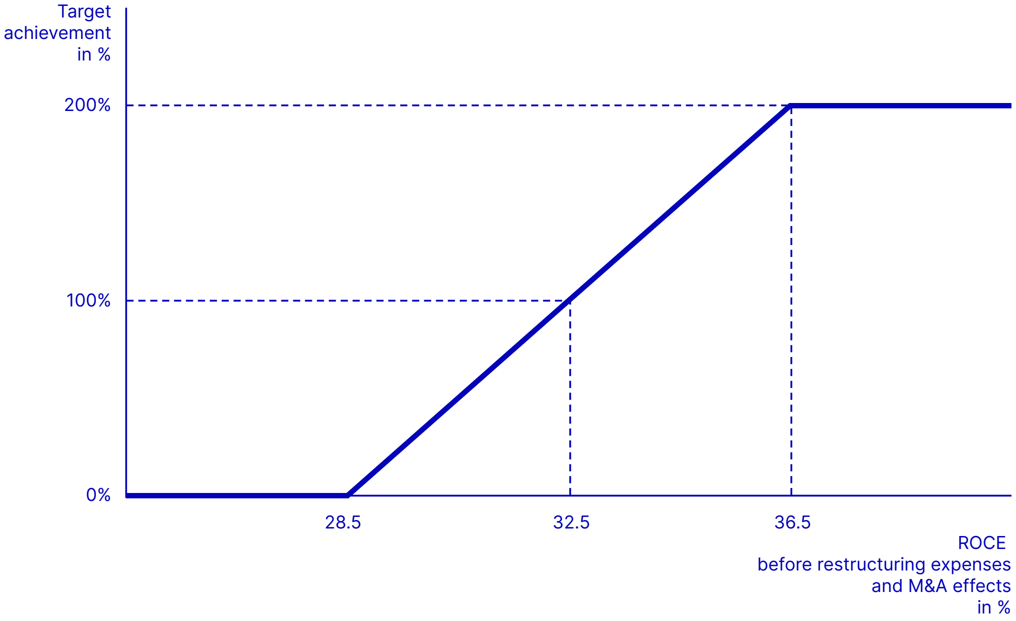
For the key performance indicator EBITDA before restructuring expenses and M&A-effects, 100 percent of the target is achieved if EBITDA before restructuring expenses and M&A-effects in fiscal year 2024 amounts to EUR 820 million. The target achievement corridor ranges from EUR 740 million, which would correspond to a target achievement of 0 percent, to EUR 900 million, which would correspond to a target achievement of 200 percent. Linear interpolation is performed between these values.

A target achievement of 100 percent should be given for the key performance indicator ROCE before restructuring expenses and M&A-effects in fiscal year 2024 if a ROCE before restructuring expenses and M&A-effects of 32.5 percent is achieved. Here, the target achievement corridor ranges from 28.5 percent (where target achievement would correspond to 0 percent) to 36.5 percent (where target achievement would correspond to 200 percent). Linear interpolation is performed between these values.

Target achievement curve EBITDA before restructuring expenses and M&A effects



Target achievement curve ROCE before restructuring expenses and M&A effects



The Supervisory Board defined the following modifier targets and assessment criteria for the 2024 STI, which apply equally to all Executive Board members, based on the strategic targets:

Modifier targets and assessment criteria applicable to the 2024 STI (range: 0.8–1.2)
Improvement of occupational safety
Limited discretionary assessment by the Supervisory Board, taking into account certain key figures on accident frequency defined in advance by the Supervisory Board
Increase in employee retention
Limited discretionary assessment by the Supervisory Board, taking into account certain key figures on employee fluctuation defined in advance by the Supervisory Board
Cash-Conversion-Rate (CCR)
Assessment by the Supervisory Board, taking into account certain thresholds defined in advance by the Supervisory Board

<u>Disclosures relating to share-based remuneration for the period 2021 to 2023</u>

Up to and including fiscal year 2021, the previous remuneration system granted the Executive Board share-based remuneration in the form of annual tranches of the Performance Share Plan. The performance period of each of these tranches encompasses three fiscal years. Starting from fiscal year 2022, the Executive Board is awarded share-based remuneration in the form of annual tranches of the Performance Share Plan with a four-year performance period. The tranche awarded in fiscal year 2023 is measured over a four-year period from 2023 to 2026 and will be paid out in fiscal year 2027. At the end of the four-year performance period, the payout is calculated as the arithmetic mean of the annual target achievements of the four fiscal years multiplied by the number of performance shares awarded and the dividend adjusted arithmetic mean of the share price, limited to a maximum of 200 percent. Target achievement for the 2023 tranche is 80 percent. The provisional total number of performance shares for the 2022 tranche and the 2023 tranche calculated on the basis of target achievement is summarized in the table below.

	Tranche 2023	Tranche 2022	
	2023	2022*	2023
Target Achievement	80%	166%	80%
Stefan Klebert	6,940	12,286	5,926
Bernd Brinker	777	–	–
Johannes Giloth	3,470	6,143	2,963

*) Prior year's figure adjusted due to corrected TSR performance.

The 2023 tranche for Marcus A. Ketter was disbursed pro rata temporis in October 2023 to his surviving dependents.

For the 2021 tranche, whose performance period ended on December 31, 2023, and which will be paid out in the current fiscal year 2024, the final target achievement is 200 percent for EPS growth and 182 percent for the relative TSR. The target achievement corridor for EPS growth ranges from a Compound Annual Growth Rate (CAGR) of 8.0 percent during the performance period, which would correspond to target achievement of 0 percent, to a CAGR of 18.0 percent for the period 2021 to 2023, which would correspond to target achievement of 200 percent. Linear interpolation is performed between these values, whereby 13.0 percent equates to a target achievement of 100 percent.

Like the 2021 tranche to be paid out in the current 2024 fiscal year, the tranches of the Performance Share Plan in the form specified in the remuneration system applicable for 2023 support the company's long-term, sustainable development thanks to the three-year, forward-looking assessment basis, the clear alignment with the capital market and the focus on the long-term performance of GEA's shares.

Details of the existing entitlements of the current members of the Executive Board under this remuneration component are shown in the table below.

	Performance shares issued at the start of the vesting period (in number of shares)	Fair value as of the grant date (in EUR)	Fair value as of December 31, 2023 (in EUR)	Fair value as of December 31, 2022 (in EUR)
Stefan Klebert				
2021 tranche	50,664	1,080,000	2,160,000	2,105,748
2022 tranche	29,630	1,296,000	1,254,356	1,363,306
2023 tranche	34,699	1,296,000	1,242,536	–
Bernd Brinker	–	–	–	–
2021 tranche	–	–	–	–
2022 tranche	–	–	–	–
2023 tranche	18,421[1]	145,140[2]	139,156[3]	–
Johannes Giloth	–	–	–	–
2021 tranche	25,332	540,000	1,080,000	1,052,874
2022 tranche	14,815	648,000	627,178	681,653
2023 tranche	17,350	648,000	621,286	–
Total Tranche 2021	**75,996**	**1,620,000**	**3,240,000**	**3,158,622**
Total Tranche 2022	**44,445**	**1,944,000**	**1,881,534**	**2,044,959**
Total Tranche 2023	**70,470**	**2,089,140**	**2,002,978**	**–**

1) Reflects a payout reduced pro rata temporis in March 2027 due to the appointment on October 16, 2023.
2) Due to Bernd Brinker joining on October 16, 2023 and the resulting reduction in the payment of the 2023 tranche under the Performance Share Plan, the fair value at grant date was reduced accordingly to EUR 7.88 per performance share.
3) Based on a reduced fair value of EUR 7.55 per performance share (rounded) as of December 31, 2023.

Entitlements arising from this remuneration component equivalent to the cumulative granted amount, pro rata temporis for the 2023 tranche, were disbursed to the surviving dependents of Marcus A. Ketter in October 2023.

	Performance shares issued at the start of the vesting period (in number of shares)	Fair value as of the grant date (in EUR)	Fair value as of December 31, 2023 (in EUR)	Fair value as of December 31, 2022 (in EUR)
Marcus A. Ketter				
2021 tranche	28,710	612,000	–[3]	1,193,315
2022 tranche	16,781	734,000	–[3]	772,111
2023 tranche	19,652[1]	734,000[2]	–[3]	–

1) Payout reduced pro rata temporis in October 2023 due to the death of Marcus A. Ketter on August 6, 2023.
2) Due to the death of Marcus A. Ketter on August 6, 2023 and the resulting reduction in the payment of the 2023 tranche under the Performance Share Plan, the fair value at grant date was reduced accordingly to EUR 22.21 per performance share.
3) The remaining tranches of the performance share plan were paid out in October 2023 in the (pro rata temporis reduced) grant amount.

In fiscal year 2023, total expenditure for share-based remuneration under all remuneration systems (i.e., the total of the fair value of share-based remuneration granted in the fiscal year as of the balance sheet date and the change in fair value in relation to entitlements under share-based remuneration in the fiscal year 2023) that was recognized in the consolidated IFRS financial statements amounted to EUR 1,188 thousand for Stefan Klebert (previous year: EUR 1,335 thousand); EUR 139 thousand for Bernd Brinker (previous year: EUR 0 thousand) and EUR 594 thousand for Johannes Giloth (previous year: EUR 668 thousand). The pro rata release of the provision for Marcus A. Ketter's share-based remuneration resulted in income of EUR 183 thousand (previous year: expense of EUR 756 thousand). Further information on the LTI is outlined in Note 7.3.3 of the Consolidated Financial Statements.

Grants, specifications and calibrations of strategic goals under the 2024 tranche

Based on a contractually agreed allotment and the arithmetic mean of the closing prices of the GEA shares over the last three months prior to the start of the performance period on January 1, 2024 of EUR 34.09, the Executive Board members were granted the following number of performance shares under the sixth tranche of the LTI granted for the current fiscal year (2024 tranche):

Participants Tranche 2024	Contractual target value (in EUR)	Number of performance shares granted
Stefan Klebert	1,296,000	38,018
Bernd Brinker	542,860[1]	20,182[2]
Johannes Giloth	648,000	19,009
Total	**2,486,860**	**77,209**

1) Due to Bernd Brinker's employment contract until October 15, 2024 and the resulting reduction in the payout of the 2024 tranche of the performance share plan, the fair value on the grant date was reduced to a rounded EUR 26.90 per performance share.
2) Taking into account the pro rata temporis reduced payout in March 2028.

The Supervisory Board has set and calibrated the following strategic targets, with a weighting of 40 percent within the LTI, for the 2024 tranche of the LTI:

Strategic targets and calibration of LTI 2024
Reduction of Scope 1 and 2 greenhouse gas emissions*
• This target concerns the achievement of defined targets for reducing Scope 1 and 2 greenhouse gas emissions. • Target attainment is assessed based on the linear annual reduction target for Scope 1 and 2 – amounting to a total reduction of 80 percent by 2030 (from base year 2019) • Target achievement of 100 percent is achieved if the linear annual reduction target is met. • In the event of mergers or acquisitions, the assessment model is adjusted in line with the requirements of the Science Based Targets Initiative (SBTi). • The target is weighted with 10 percent of LTI.
Reduction of Scope 3 greenhouse gas emissions*
• This target concerns the achievement of defined targets for reducing Scope 3 greenhouse gas emissions, comprising indirect emissions generated in the company’s value chain, including upstream and downstream emissions. • Target attainment is assessed based on the linear annual reduction target for Scope 3 – amounting to a total reduction of 27.5 percent by 2030 (from base year 2019) • Target achievement of 100 percent is achieved if the linear annual reduction target is met. • In the event of mergers or acquisitions, the assessment model is adjusted in line with the requirements of the Science Based Targets Initiative (SBTi). • The target is weighted with 10 percent of LTI.
Sustainable product innovation
• This target concerns the achievement of a defined level of annual sales volume from products that are no more than 5 years old. • The target is weighted with 20 percent of LTI.

*) A more detailed discussion can be found in the Sustainability Report at gea.com.

The strategic goals that are decisive for the calibration of the 2024 LTI are, first, the reduction of greenhouse gas emissions in scope 1 and 2 as well as scope 3 and, second, sustainable product innovations. The strategic goals thus support GEA’s own target established as part of its climate strategy to reduce its greenhouse gas emissions along its entire value chain to net zero by 2040. In addition to the net zero target for 2040, GEA has also presented interim targets in line with SBTi for all emission areas. These interim targets for Scope 1, 2 and 3 form the basis for assessing target achievement. GEA’s climate strategy is the first building block of a comprehensive ESG strategy, which is the basis of GEA’s Mission 26 corporate strategy. As part of „Mission 26“, increasing sustainable product innovations also plays an important role. In this respect, three targets that will have a lasting impact on the future of GEA and the environment are part of the Executive Board’s LTI.

To calibrate the relative TSR performance criterion (GEA’s TSR performance is set in relation to the DAX 50 ESG companies), the principles specified in the remuneration system are applied (see the gea.com website under “Company – Investors – Corporate Governance – Remuneration”.*

*) Unaudited information

Share ownership guidelines

Under the remuneration system, the members of the Executive Board are obliged to acquire GEA shares and hold them until the end of their period of service. The amount of this shareholding obligation is 150 percent of the annual gross fixed salary for Stefan Klebert and 100 percent of the annual gross fixed salary for Bernd Brinker and Johannes Giloth. Until the shareholding obligation has been met in full, Executive Board members are required to invest 25 percent of the variable net payment from the STI and LTI in GEA shares or to contribute otherwise acquired GEA shares to the program.

At present, members of the Executive Board hold the following number of GEA shares:

	Share ownership guidelines (SOG) target		Shares held	
	% of fixed salary	Target value in EUR	Number	Value in EUR as of 12/31/2023
Stefan Klebert	150	2,160,000	100,000[1]	3,769,000
Bernd Brinker	100	790,000	3,000[2]	113,070
Johannes Giloth	100	720,000	29,157[3]	1,098,927

1) Thereof, 59,999 shares were contributed under the SOG.
2) Thereof, 0 shares were contributed under the SOG.
3) Thereof, 20,157 shares were contributed under the SOG.

On payment of the STI 2023 at the end of March 2024, shares will be purchased under the share ownership guidelines (SOG) for Bernd Brinker.

Compliance with the maximum remuneration pursuant to section 87a(1) sentence 2 no. 1 of the AktG

Under the remuneration system, a maximum remuneration of EUR 6.2 million is planned for the Chairman of the Executive Board and EUR 3.7 million for ordinary members of the Executive Board. In the event of the appointment of a new member of the Executive Board, a one-time increase in the maximum remuneration by a maximum of 35 percent, applicable exclusively to the fiscal year of such appointment, is possible, provided the Supervisory Board resolves upon commencement of the term to offset the loss of benefits from the new Executive Board member's former employer. This option was not exercised in fiscal year 2023. Details can be found in the remuneration system on the gea.com website under "Company – Investors – Corporate Governance – Remuneration".*

*) Unaudited information

In the reporting period, the remuneration to be included for the purpose of assessing compliance with the maximum remuneration (consisting of the fixed annual salary, fringe benefits, STI and contributions to the company pension plan) was EUR 3,419,156 for Stefan Klebert, EUR 1,632,805 for Marcus A. Ketter, EUR 382,089 for Bernd Brinker and EUR 1,728,832 for Johannes Giloth. Compliance with maximum remuneration limits for current Executive Board members for fiscal year 2023 may only be conclusively assessed after the end of the performance period of the 2023 LTI tranche on December 31, 2026. However, due to the limitation on the maximum payout amounts of the LTI to 200 percent of the target values, it may be assumed that maximum remuneration limits for the fiscal year 2023 will be complied with. Due to the premature payment of the LTI tranches, a final assessment of compliance with the maximum remuneration for Marcus A. Ketter for the years 2022 and 2023 can be made. Marcus A. Ketter's remuneration relevant for the assessment of compliance with the maximum remuneration amounted to EUR 2,821,453 in 2022 and EUR 1,632,805 in 2023 and therefore does not exceed the maximum remuneration envisaged for an ordinary member of the Executive Board. On December 31, 2023, a final assessment of compliance with the maximum remuneration for the 2021 financial year is also possible. In total, the remuneration relevant for the assessment amounted to EUR 5,211,557 for Stefan Klebert, EUR 2,427,460 for Marcus A. Ketter and EUR 2,630,840 for Johannes Giloth, thus not exceeding the maximum remuneration of the remuneration system.

Malus and clawback

If an Executive Board member is proven to have willfully acted in gross violation of one of their significant duties of care under section 93 of the Aktiengesetz (AktG), a material policy contained in significant internal guidelines issued by the company or other material obligations under their service contract, the Supervisory Board may, at its reasonably exercised discretion (section 315 of the Bürgerliches Gesetzbuch (BGB – German Civil Code)), reduce the variable remuneration awarded in the fiscal year that the gross violation took place partially or fully to zero (malus). Furthermore, in such cases, any variable remuneration already paid out may be reclaimed, with the Executive Board member's repayment obligation being restricted to the net amount paid out (clawback).

Comparative presentation of the changes in Executive Board remuneration, company earnings and employee remuneration

The following overview presents the annual change in total individual remuneration for members of the Executive Board, GEA's earnings performance, and the average remuneration of employees on a full-time equivalent basis.

The remuneration of individual Executive Board members included in the table corresponds to the total remuneration awarded and due in the fiscal year as presented above. The performance is determined on the basis of EBITDA before restructuring expenses, ROCE, and revenue of the GEA Group, and additionally on the basis of GEA Group Aktiengesellschaft's net income for the fiscal year. EBITDA before restructuring expenses, ROCE and revenue are key performance indicators for the Group. EBITDA before restructuring expenses and ROCE already comprise the basis of the financial targets for the Executive Board's one-year variable remuneration. Annual organic sales growth was defined as one of three performance criteria for the tranche of the LTI granted for the current fiscal year 2023. The presentation of average employee remuneration on a full-time equivalent basis is based on the group of employees of GEA Group Aktiengesellschaft together with GEA Group Services GmbH (number of employees in 2020-2023 approx. 500), which form a joint operation, and the employees of GEA Group companies in Germany (number of employees in 2020-2023 approx. 6,700).

Year-on-year change in %	2023[1]	2022[1]	2021[1]
Remuneration of current Executive Board members			
Stefan Klebert[2]	8.6	-5.1	17.2
Bernd Brinker[2]	–	–	–
Johannes Giloth[2]	8.9	-6.3	23.4
Remuneration of former Executive Board members	–	–	–
Marcus A. Ketter[2]	-53.3[3]	**-5.5**	17.1[4]
Steffen Bersch	148.4	–	-100.0[4]
Martine Snels	-100.0	-119.1	-63.9
Niels Erik Olsen	–	-100.0	-91.5
Jürg Oleas	–	–	-100.0
Dr. Helmut Schmale	0.6	12.3	0.8
Other former members and surviving dependents[5]	37.6[6]	6.1	0.8
Earnings indicators	–	–	–
EBITDA before restructuring measures GEA Group	8.7	14.0	17.3
ROCE GEA Group	93 bp	391 bp	1,079.0
Revenue GEA Group	4.0	9.8	1.5
Net income for the fiscal year GEA Group AG	290.3	-10.6	70.7
Employee remuneration	–	–	–
Employees of GEA Group Aktiengesellschaft and GEA Group Services GmbH	4.4	-0.2	13.6
Employees of GEA Group in Germany	6.6	0.8	5.4

1) Over the next years, the period under consideration in the comparative analysis will be successively extended to cover five comparative periods in accordance with section 26 j of the German Act Implementing the Second Shareholder Rights Directive (ARUG II).
2) The change compared to previous year is due to the higher expected payout amount (based on the fair value as of December 31 of the relevant fiscal year) of the LTI tranche vested in the fiscal year.
3) The change compared to previous year is due to Marcus A. Ketter's departure from the Executive Board as of August 8, 2023.
4) The change compared to previous year is due to Steffen Bersch's departure from the Executive Board as of February 29, 2020.
5) Individualized disclosure for former Executive Board members and their surviving dependents is omitted for members of the Executive Board who left the company more than ten years ago.
6) The increase is due in particular to one-off payments in connection with the death of Marcus A. Ketter.

In fiscal year 2023, the ratio of the CEO's remuneration to the average remuneration of all GEA Group employees in Germany was 67.9 (previous year: 66.6). In fiscal year 2023, the ratio of the CEO's remuneration to the average remuneration of all employees of GEA Group Aktiengesellschaft and GEA Group Services GmbH was 33.9 (previous year: 32.6). To determine this ratio, the average remuneration awarded and due to all employees of GEA Group Aktiengesellschaft and GEA Group Service GmbH as well as the GEA Group in Germany in the fiscal year is calculated as a proportion of the remuneration awarded and due to the CEO for the respective fiscal year (see the section "Remuneration awarded and due in 2023 (and 2022)").

Benefits in the event of regular departure from the Executive Board

As a standard form of company pension plan, the remuneration system provides for a contribution-oriented defined benefit. The pension commitment vests immediately and includes pension, surviving dependents' as well as incapacity benefits. As part of their retirement benefits, the accrued capital is available to the Executive Board members from age 62 onwards. Should a member of the Executive Board pass away before reaching the age of 62, his/her surviving dependents, i.e., his/her surviving spouse or partner or the surviving children are entitled to survivors benefits. The amount of disability and surviving dependents' benefits is equivalent to the accrued pension capital. If a member of the Executive Board dies after the occurrence of a pension event, his/her surviving dependents are entitled to receive the residual capital.

For meeting its pension commitments, the company sets up a pension account for each Executive Board member and deposits the contractually agreed pension contributions into this account on a monthly basis. Monthly pension contributions are granted for each month during the term of the Executive Board service agreement. The gross monthly pension contributions amount to EUR 33,333 for Stefan Klebert, EUR 20,833 for Bernd Brinker and EUR 16,666 for Johannes Giloth. In addition, the members of the Executive Board have the option of participating in a deferred remuneration scheme up to a maximum amount of EUR 100,000 per year.

Upon retirement, the available pension capital that determines the level of pension benefits results from the pension contributions paid into the pension account until the time pension benefits are paid out, including the performance of the pension account during the investment period. The company guarantees a nominal return of premium, i.e., comprising, at a minimum, the aggregate amount of the company-funded pension contributions, and the deferred contributions are available at the time the pension capital falls due. The latter may be paid out as a lump sum or in up to 20 annual installments, with outstanding installments continuing to earn 1 percent interest per year.

Pension commitments under this program were made to Stefan Klebert, Bernd Brinker and Johannes Giloth. Marcus A. Ketter's pension commitment was disbursed in full in October 2023 to his surviving dependents. There were no other changes to pension commitments during the reporting period.

Pension scheme contributions and provisions for pension obligations

The company has set aside pension provisions to cover the future entitlements of the Executive Board members. The service cost for pension provisions for active Executive Board members recognized at the end of the 2023 fiscal year in accordance with IFRS are listed individually in the table below.

(in EUR)	Pension obligation* as of 12/31/2023	Service cost in fiscal year 2023
Stefan Klebert	2,231,425	400,000
Bernd Brinker	54,597	34,091
Johannes Giloth	1,174,836	200,000
Total	**3,460,858**	**634,091**

*) Pension obligation before plan assets.

Benefits in the event of premature departure from the Executive Board

The following rules apply to Stefan Klebert, Bernd Brinker and Johannes Giloth. Compared with the previous year, there was only one change in the reporting period in the compensation components considered in the calculation of the severance payment in the event of revocation of the appointment of a member of the Management Board or resignation from office for good cause.

The system stipulates that if the appointment of an Executive Board member is revoked for good cause with legal effect in accordance with section 84(3) of the AktG, or if an Executive Board member validly resigns from office pursuant to section 84(3) of the AktG, the Executive Board member's service agreement will – as a rule – end on expiry of the statutory notice period pursuant to section 622(1) and (2) of the Bürgerliches Gesetzbuch (BGB – German Civil Code). However, if the appointment is revoked due to an individual's inability to properly manage the company as defined in section 84(3) of the AktG, the notice period runs until the end of the eight-month period.

In both of the aforementioned cases involving the early termination of his/her appointment, an Executive Board member will first of all receive the variable remuneration he or she has earned up until the date of his or her departure. The performance-related remuneration components are calculated and paid out in accordance with the plan terms and conditions for STI and LTI. In the case of the LTI, the amount paid out for the tranche for the fiscal year in which the employment relationship ends is reduced pro rata temporis if the employee leaves the company during the year. In the case of tranches issued from fiscal year 2022 onwards, for fiscal years prior to termination of employment, target achievement for performance criteria related to LTI is calculated and fixed on the basis of actual results achieved, whereas for fiscal years after termination of employment, target achievement for performance criteria related to LTI is set at 100 percent. The value of performance shares issued under an LTI tranche will continue to be determined at the end of the four-year performance period. There is no provision for an early payout before the end of the performance period. Moreover, the departing Executive Board member receives a severance payment in the amount of the total remuneration agreed for the remaining term of the service agreement to compensate for his/her early departure from the company, but no more than two years' remuneration (severance payment cap). For computing severance pay entitlements, the remuneration system provides for a target achievement level of 100 percent applicable to any unvested remuneration for the current and future fiscal years, as the case may be. For computing severance pay entitlements, the remuneration system provides for a target achievement level of 100 percent applicable to any unvested remuneration for the current and future fiscal years, as the case may be.

If the service agreement is terminated in the course of a fiscal year by the company under its right of extraordinary termination for good cause under section 626(1) of the BGB or based on the valid revocation of an appointment on grounds that would have given the company good cause for extraordinary termination under section 626(1) of the BGB, the right to the STI lapses for such fiscal year along with claims to the LTI for the respective performance period in which the appointment ends without right to remuneration therefore. Similarly, entitlement to payment of severance pay lapses in such cases as well.

All outstanding tranches of the LTI will be paid out in the event of termination of employment due to the permanent incapacity to work of the Executive Board member or in the event of their death. The payout amount corresponds to the cumulative allocation of all outstanding tranches, with the allocation reduced on a pro rata basis temporis for the fiscal year in which the employment relationship ends. In such cases, payment is made no later than two months after termination of the employment relationship. If an Executive Board member leaves the company due to incapacity to work, he/she is entitled to receive disability benefits. If the Executive Board member dies during the term of the service agreement, his/her spouse or civil partner within the meaning of section 1 of the Lebenspartnerschaftsgesetz (LPartG – the Act on Registered Life Partnerships), or alternatively their dependent children as joint and several creditors, are entitled to the undiminished payment of the fixed remuneration for the month of death and the following three months, but no longer than until the end of the regular term of the service agreement.

The employment contracts concluded with Executive Board members do not provide for termination or any other rights in the event of a change of control, nor any benefits associated therewith.

Remuneration of the members of the Supervisory Board

Remuneration awarded or due in 2023 (and 2022)

In the fiscal year under review, the expenses incurred for the Supervisory Board amounted to EUR 1,744 thousand (previous year: EUR 1,309 thousand).

The following table shows the individual breakdown of the remuneration and its respective components awarded to members of the Supervisory Board and/or the Presiding and Sustainability Committee, the Audit and Cybersecurity Committee and the Innovation and Product Sustainability Committee in 2023 compared with the previous year:

(in EUR)	Remuneration Supervisory Board	Remuneration Presiding and Sustainability Committee	Remuneration Audit and Cybersecurity Committee	Remuneration Innovation and Product Sustainability Committee	Pro-rata fixed remuneration components	Attendance fee	Share of attendance fee	**Total**
Böhning*	70,000	–	–	–	90%	8,000	10%	**78,000**
Previous year	31,918	–	–	–	89%	4,000	11%	**35,918**
Claas*	70,000	–	45,000	–	91%	12,000	9%	**127,000**
Previous year	50,000	–	35,000	–	89%	11,000	11%	**96,000**
Falk*	70,000	45,000	–	35,000	90%	16,000	10%	**166,000**
Previous year	50,000	35,000	–	25,000	88%	15,000	12%	**125,000**
Prof. Dr. Fleischer	70,000	–	–	70,000	93%	10,000	7%	**150,000**
Previous year	50,000	–	–	50,000	91%	10,000	9%	**110,000**
Gröbel*	105,000	45,000	–	–	91%	14,000	9%	**164,000**
Previous year	75,000	35,000	–	–	89%	13,000	11%	**123,000**
Hall	–	–	–	–	–	–	–	**–**
Previous year	16,164	11,315	–	–	85%	5,000	15%	**32,479**
Helmrich	–	–	–	–	–	–	–	**–**
Previous year	46,233	25,890	12,945	–	92%	7,000	8%	**92,068**
Kampmeyer	46,603	–	–	23,301	95%	4,000	5%	**73,904**
Previous year	50,000	–	–	25,000	88%	10,000	12%	**85,000**
Kämpfert	70,000	–	–	–	90%	8,000	10%	**78,000**
Previous year	50,000	–	–	–	86%	8,000	14%	**58,000**
Prof. Kempf	175,000	90,000	45,000	–	95%	18,000	5%	**328,000**
Previous year	78,767	44,110	22,055	–	94%	9,000	6%	**153,932**

(in EUR)	Remuneration Supervisory Board	Remuneration Presiding and Sustainability Committee	Remuneration Audit and Cybersecurity Committee	Remuneration Innovation and Product Sustainability Committee	Pro-rata fixed remuneration components	Attendance fee	Share of attendance fee	**Total**
Prof. Dr. Köhler	70,000	–	90,000	–	–	12,000	7%	**172,000**
Previous year	50,000	–	70,000	–	91%	12,000	9%	**132,000**
Krönchen*	70,000	–	45,000	35,000	–	14,000	9%	**164,000**
Previous year	50,000	–	35,000	25,000	89%	14,000	11%	**124,000**
Lei	70,000	–	–	–	91%	7,000	9%	**77,000**
Previous year	50,000	–	–	–	86%	8,000	14%	**58,000**
Renschler	23,397	–	–	11,699	90%	4,000	10%	**39,096**
Previous year	–	–	–	–	–	–	–	**–**
Dr. Riedl	70,000	45,000	–	–	91%	12,000	9%	**127,000**
Previous year	33,836	23,685	–	–	89%	7,000	11%	**64,521**
Prof. Dr. Röhner*	–	–	–	–	–	–	–	**–**
Previous year	16,164	–	–	–	84%	3,000	16%	**19,164**
Total	**980,000**	**225,000**	**225,000**	**175,000**	**92%**	**139,000**	**8%**	**1,744,000**
Previous year	**698,082**	**175,000**	**175,000**	**125,000**	**90%**	**136,000**	**10%**	**1,309,082**

*) The company and the external employee representatives remit their respective remuneration to the Hans Böckler Foundation in accordance with applicable guidelines.

As part of a voluntary commitment to purchase GEA shares, the majority of the Supervisory Board members have undertaken, with effect from fiscal year 2023, each to use 25 percent of their undisbursed (gross) remuneration (excluding attendance fees) to acquire GEA shares and to hold these until they leave the Supervisory Board. This purchase obligation applies until a total volume equivalent to a full year's remuneration of the respective Supervisory Board member is reached. The first acquisition under the program will take place in 2024.

At present, members of the Supervisory Board hold the following number of shares:

	Shares held	
	Number	Value in EUR as of 12/31/2023
Böhning	–	–
Claas	–	–
Falk	500	18,845
Prof. Dr. Fleischer	30	1,131
Gröbel	800	30,152
Kämpfert	–	–
Prof. Kempf	–	–
Prof. Dr. Köhler	–	–
Krönchen	–	–
Lei	–	–
Renschler	–	–
Dr. Riedl	–	–

The table below compares the annual change in the remuneration of the individual Supervisory Board members active in the year under review against performance and average employee remuneration. The performance is determined on the basis of EBITDA before restructuring expenses, ROCE, and revenue of the GEA Group, and additionally on the basis of GEA Group Aktiengesellschaft's net income for the fiscal year. The presentation of average employee remuneration on a full-time equivalent basis is based on the group of employees of GEA Group Aktiengesellschaft together with GEA Group Services GmbH (number of employees in 2020-2023 approx. 500), which form a joint operation, and the employees of GEA Group in Germany (number of employees in 2020-2023 approx. 6,700).

Year-on-year change in %	2023[1]	2022[1]	2021[1]
Remuneration of members of the Supervisory Board			
Prof Dr. Bauer	–	–	–
Bastaki	–	-100.0	-67.1
Böhning	117.2[3]	–	–
Claas	32.3	47.6[2]	–
Eberlein	–	–	-100.0
Falk	32.8	49.1[2]	–
Prof. Dr. Fleischer	36.4	91.8[2]	–
Gröbel	33.3	8.1	17.3
Hall	-100.0	-66.5	1.0
Helmrich	-100.0	-44.0[2]	–
Hubert	–	-100.0	-66.8
Kämpfert	34.5	-16.6	-31.2
Kampmeyer	-13.1[3]	–	–
Prof. Kempf	113.1[3]	–	–
Kerkemeier	–	-100.0	68.2
Prof. Dr. Köhler	30.3	0.8	325.0
Krönchen	32.3	2.5	-4.7

Year-on-year change in %	2023[1]	2022[1]	2021[1]
Lei	32.8	50.4[2]	–
Löw	–	-100.0	-67.1
Dr. Perlet	–	-100.0	-67.9
Renschler	–	–	–
Dr. Riedl	96.8[3]	–	–
Prof. Dr. Röhner	-100.0	-50.3[2]	–
Spence	–	-100.0	-68.6
Dr. Zhang	–	-100.0	-1.8
Earnings indicators			
EBITDA before restructuring measures GEA Group	8.7	14.0	17.3
ROCE GEA Group	93 bp	391 bp	1,079 bp
Revenue GEA Group	4.0	9.8	1.5
Net income for the fiscal year GEA Group AG	290.3	-10.6	70.7
Employee remuneration			
Employees of GEA Group AG and GEA Group Services GmbH	4.4	-0.2	13.60
Employees of GEA Group in Germany	6.6	0.8	5.40

1) Over the next years, the period under consideration in the comparative analysis will be successively extended to cover five comparative periods in accordance with section 26 j of the German Act Implementing the Second Shareholder Rights Directive (ARUG II).
2) Joining the Supervisory Board in fiscal year 2021.
3) Joining the Supervisory Board in fiscal year 2022.

Düsseldorf, March 5, 2024

Chairman
of the Supervisory Board

The Executive Board

Prof. Dieter Kempf

Stefan Klebert

Bernd Brinker

Johannes Giloth

Independent Auditor’s Report

To GEA Group Aktiengesellschaft

Report on the audit of the remuneration report

We have audited the attached remuneration report of GEA Group AG, Düsseldorf, for the financial year from January 1 to December 31, 2023, including the related disclosures, prepared to meet the requirements of Section 162 AktG [Aktiengesetz: German Stock Corporation Act].

The remuneration report contains cross-references marked as unaudited that are not required by law. We have not audited the content of these cross-references or the information to which they refer.

Responsibilities of Management and the Supervisory Board

The management and the Supervisory Board of GEA Group AG are responsible for the preparation of the remuneration report, including the related disclosures, in accordance with the requirements of Section 162 AktG. The management and the Supervisory Board are also responsible for such internal controls as they determine are necessary to enable the preparation of a remuneration report, including the related disclosures, that is free from material misstatement, whether due to fraud or error (i.e., accounting manipulation and misstatement of assets).

Auditor’s responsibilities

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

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

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

Opinion

In our opinion, on the basis of the knowledge obtained in the audit, the remuneration report for the financial year from January 1 to December 31, 2023, including the related disclosures, complies in all material respects with the financial reporting requirements of Section 162 AktG.

Our opinion on the remuneration report does not cover the cross-references marked as unaudited that are not required by law and the information to which the cross-references relate.

Other matter – formal examination of the remuneration report

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

Limitation of liability

The terms governing this engagement, which we fulfilled by rendering the aforesaid services to GEA Group AG, are set out in the General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms] as amended on 1 January 2017. By taking note of and using the information as contained in this auditor's report, each recipient confirms to have taken note of the terms and conditions laid down therein (including the limitation of liability of EUR 4 million for negligence under Clause 9 of the General Engagement Terms) and acknowledges their validity in relation to us.

Düsseldorf, March 5, 2024

KPMG AG
Wirtschaftsprüfungsgesellschaft
[German orignal signed by:]

Dr. Zeimes	Dr. Ohmen
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

The English language text above is a translation provided for information purposes only. The original German text shall prevail in the event of any discrepancies between the English translation and the German original. We do not accept any liability for the use of, or reliance on, the English translation or for any errors or misunderstandings that may arise from the translation.

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position , and profit or loss of the group, and the management report of the group, which has been combined with the management report of the company, includes a fair review of the development and performance of the business and the position of the group, together with a description of the principal opportunities and risks associated with the expected development of the group.

Düsseldorf, March 5, 2024

Stefan Klebert Bernd Brinker Johannes Giloth

Corporate Bodies and their Mandates

Executive Board

Stefan Klebert, Düsseldorf/Germany, CEO – Chairman of the Executive Board
b) • GEA Farm Technologies GmbH, Bönen/Germany, Chairman of the Supervisory Board*
• GEA Westfalia Separator Group GmbH, Oelde/Germany, Chairman of the Supervisory Board*
d) • Chairman of the INNIO Advisory Committee of Alpine (Luxembourg) S.à.r.l. Luxembourg

Bernd Brinker, Düsseldorf/Germany, Member of the Executive Board and CFO (since October 16, 2023)

Johannes Giloth, Neubiberg/ Germany, Member of the Executive Board and COO

Marcus A. Ketter, Düsseldorf/Germany, CFO (until August 6, 2023)
b) • Hoberg & Driesch GmbH, Düsseldorf/Germany, Member of the Shareholders' Committees
• Hoberg & Driesch GmbH & Co. KG Röhrengroßhandel/Hoberg/Germany and Driesch Beteiligungs GmbH, Düsseldorf/Germany, Member of the Advisory Boards
• Chiron Group SE, Tuttlingen/Germany, Member of the Board of Directors

Supervisory Board

Prof. Dieter Kempf, Nuremberg/Germany, Vice President of the Federation of German Industries (BDI) reg. soc., Chairman of the Supervisory Board of GEA Group Aktiengesellschaft
b) • Amfileon AG, Munich, Chairman of the Supervisory Board

Rainer Gröbel, Sulzbach/Ts./Germany, Deputy Chairman of the Supervisory Board, Managing Director of the ACADEMY of LABOUR gGmbH as well as of the UNIVERSITY of LABOUR gGmbH, Frankfurt/Main, Germany

Nancy Böhning, Berlin/Germany, Head of Berlin Office - IG Metall Executive Board - Office of the Executive Board Members

Claudia Claas, Oelde/Germany Deputy Chairwoman of the Group Works Council of GEA Group Aktiengesellschaft

Roger Falk, Prichsenstadt/Germany, Chairman of the Group Works Council of GEA Group Aktiengesellschaft

a) Membership of statutory German supervisory boards in listed companies
b) Membership of statutory German supervisory boards in not listed companies
c) Membership of comparable German or foreign supervisory bodies of listed business entities
d) Membership of comparable German or foreign supervisory bodies of not listed business entities

*) Internal mandate at a GEA group company

Prof. Dr.-Ing. Jürgen Fleischer, Karlsruhe/Germany,
Chairman of the Committee for Innovation and Product Sustainability of GEA Group Aktiengesellschaft,
Director of the institute and full professor of Machines, Equipment and Process Automation at Karlsruhe Institute of Technology (KIT) wbk Institute for Production Technology

b) • EOS Holding AG, Krailling/Germany, Member of the Supervisory Board
• MAG – IAS GmbH, Eislingen/Germany, Member of the Supervisory Board (since June 27, 2023)

d) • ARKU Maschinenbau GmbH., Baden-Baden/Germany, Member of the Advisory Board
• Profilator GmbH & Co. KG, Wuppertal/Germany, Member of the Advisory Board
• Lapp Holding AG, Stuttgart/Germany, Member of the Technology Advisory Board

Jörg Kampmeyer, Würzburg/Germany (until August 31, 2023),
Managing Partner of Gebr. Knauf KG

Michael Kämpfert, Düsseldorf/Germany,
Vice President HR /SFT der GEA Group Aktiengesellschaft

Prof. Dr. Annette G. Köhler, Düsseldorf/Germany,
Chairwoman of the Audit and Cyersecurity Committee of GEA Group Aktiengesellschaft,
University Professor and Holder of the Chair of Accounting, Auditing and Controlling at the University of Duisburg-Essen

a) • DMG Mori AG, Bielefeld/Germany, member of the Supervisory Board and Chairwoman of the Finance and Audit Committee
• Gerresheimer AG, Düsseldorf/Germany, Member of the Supervisory Board and Chairwoman of Audit Committee

c) • DKSH Holding AG, Zurich/Switzerland, Member of the Board of Directors and Chairwoman of the Audit Committee

c) • ABB E-Mobility Holding AG, Baden (Switzerland), Member of the Board of Directors and Chair of the Audit and Sustainability Committee and Member of the Governance, Nomination and Compensation Committee (until March 31, 2023)

Brigitte Krönchen, Oelde/Germnay,
Deputy Chairwoman of the Group Works Council of GEA Group Aktiengesellschaft

b) • GEA Farm Technologies GmbH, Bönen/Germany, Deputy Chairwoman of the Supervisory Board*

Holly Lei, Shanghai/China,
Executive, Global SVB, President of Covestro China

d) • International Consultant Expert Committee of Shanghai Chemical Industry Park, Shanghai/China, Chairwoman (since November 9, 2023)
• AICM (Association of International Chemical Manufactory, Beijing/China, Member of the Advisory Board
• Shanghai Chapter of the European Union Chamber of Commerce in Shanghai/China, Vice Chairwoman

Andreas Renschler, Stuttgart/Germany,
Member of the Supervisory Board of GEA Group Aktiengesellschaft (since September 1, 2023)

a) • Hella GmbH & Co. KG a. A., Lippstadt/Germany, Chairman of the Supervisory Board

Dr. Jens Riedl, Munich/Germany,
Investment Partner, Groupe Bruxelles Lambert, Belgium

b) • Canyon Bicycles GmbH, Koblenz, Board Observer
• emarketing AG, Munich/Germany, Member of the Supervisory Board
• SecureSystem GmbH, Munich/Germany, Member of the Advisory Board

c) • SGS Société Générale de Surveillance SA, Zurich/Switzerland, Member of the Board of Directors (since March 28, 2023)

d) • Sofia Master Co. S.a.r.l. (Sanoptis), Luxembourg, Member of the Supervisory Board

a) Membership of statutory German supervisory boards in listed companies
b) Membership of statutory German supervisory boards in not listed companies
c) Membership of comparable German or foreign supervisory bodies of listed business entities
d) Membership of comparable German or foreign supervisory bodies of not listed business entities

*) Internal mandate at a GEA group company

Supervisory Board Committees of GEA Group Aktiengesellschaft (as of December 31, 2023)

Mediation Committee in accordance with section 27(3) of the Mitbestimmungsgesetz (MitbestG – German Co-determination Act)
Prof. Dieter Kempf, Chairman
Claudia Claas
Prof. Dr.-Ing. Jürgen Fleischer
Rainer Gröbel

Presiding and Sustainability Committee
Prof. Dieter Kempf, Chairman
Roger Falk
Rainer Gröbel
Dr. Jens Riedl

Audit and Cybersecurity Committee (formerly Audit Committee)
Prof. Dr. Annette G. Köhler, Chairwoman,
(Financial expert within the meaning of section 107(4) sentence 3 in conjunction with section 100(5) of the Aktiengesetz (AktG – German Stock Corporation Act), field “Accounting”)
Claudia Claas
Prof. Dieter Kempf,
(Financial expert within the meaning of section 107(4) sentence 3 in conjunction with section 100(5) of the Aktiengesetz (AktG – German Stock Corporation Act), field “Audit of the financial statements”)
Brigitte Krönchen

Committee for Innovation and Product Sustainability
Prof. Dr.-Ing. Jürgen Fleischer, Chairman
Roger Falk
Jörg Kampmeyer (until August 31, 2023)
Brigitte Krönchen
Andreas Renschler (since September 1, 2023)

Nomination Committee
Prof. Dieter Kempf, Chairman
Prof. Dr. Annette G. Köhler
Dr. Jens Riedl

Key Figures by Quarter

	Q1 2023	Q1 2022	Q2 2023	Q2 2022	Q3 2023	Q3 2022	Q4 2023	Q4 2022	**2023**	**2022**	**2021**
Order intake (EUR million)											
Separation & Flow Technologies	457.3	408.6	378.0	419.6	350.7	367.6	370.5	341.2	**1,556.5**	**1,537.0**	**1,359.1**
Liquid & Powder Technologies	511.5	525.6	453.0	402.2	410.8	458.7	378.8	478.5	**1,754.0**	**1,865.1**	**1,747.7**
Food & Healthcare Technologies	252.2	273.2	286.7	282.3	236.5	254.3	251.2	284.3	**1,026.7**	**1,094.1**	**1,032.8**
Farm Technologies	253.2	232.6	189.3	213.4	165.4	193.1	180.4	186.1	**788.3**	**825.2**	**702.1**
Heating & Refrigeration Technologies	184.9	162.2	129.9	149.9	142.0	141.7	124.0	127.3	**580.8**	**581.1**	**617.0**
GEA*	**1,580.7**	**1,543.6**	**1,381.4**	**1,403.3**	**1,247.4**	**1,371.7**	**1,259.9**	**1,360.4**	**5,469.4**	**5,678.9**	**5,222.5**
Revenue (EUR million)											
Separation & Flow Technologies	371.3	326.8	381.3	345.4	390.4	376.2	368.5	367.3	**1,511.4**	**1,415.6**	**1,237.2**
Liquid & Powder Technologies	386.6	380.6	434.0	430.9	437.7	444.6	465.9	459.5	**1,724.2**	**1,715.6**	**1,546.1**
Food & Healthcare Technologies	246.0	213.5	248.9	242.5	244.3	262.3	290.2	283.1	**1,029.4**	**1,001.3**	**937.1**
Farm Technologies	186.6	147.5	195.2	187.3	209.7	190.7	192.8	216.6	**784.3**	**742.0**	**633.9**
Heating & Refrigeration Technologies	131.9	120.3	144.0	125.5	133.8	137.1	146.6	140.7	**556.3**	**523.6**	**584.0**
GEA*	**1,270.9**	**1,126.4**	**1,342.2**	**1,271.0**	**1,351.1**	**1,353.6**	**1,409.3**	**1,413.7**	**5,373.5**	**5,164.7**	**4,702.9**
EBITDA (EUR million)											
Separation & Flow Technologies	93.6	81.0	97.4	67.8	105.7	92.4	96.6	94.2	**393.3**	**335.4**	**302.4**
Liquid & Powder Technologies	27.2	25.8	39.1	39.2	44.9	48.1	57.4	47.7	**168.6**	**160.7**	**147.4**
Food & Healthcare Technologies	20.8	20.1	11.6	20.4	14.6	28.3	9.0	34.5	**55.9**	**103.4**	**88.1**
Farm Technologies	22.3	9.1	28.3	20.2	31.8	25.5	20.0	24.6	**102.4**	**79.4**	**73.3**
Heating & Refrigeration Technologies	15.2	12.6	14.4	13.2	16.3	12.2	14.7	11.8	**60.7**	**49.8**	**37.5**
GEA*	**157.3**	**131.9**	**179.2**	**146.0**	**203.2**	**188.1**	**174.1**	**188.0**	**713.8**	**654.0**	**569.3**
EBITDA before restructuring expenses (EUR million)											
Separation & Flow Technologies	94.8	81.2	99.4	87.2	101.6	94.9	100.1	97.0	**395.9**	**360.2**	**302.5**
Liquid & Powder Technologies	30.0	27.9	40.0	39.2	46.1	48.9	61.8	49.7	**177.8**	**165.6**	**150.0**
Food & Healthcare Technologies	25.5	20.4	15.2	19.6	16.7	29.2	20.9	38.1	**78.4**	**107.3**	**100.4**
Farm Technologies	23.4	10.0	29.7	21.2	33.0	25.9	23.6	29.0	**109.6**	**86.1**	**76.1**
Heating & Refrigeration Technologies	15.5	12.8	16.5	13.3	17.6	15.8	16.6	15.2	**66.2**	**57.1**	**59.5**
GEA*	**171.8**	**138.2**	**191.5**	**167.4**	**207.0**	**198.7**	**204.0**	**207.6**	**774.3**	**712.0**	**624.8**
EBITDA margin before restructuring expenses (%)											
Separation & Flow Technologies	25.5	24.9	26.1	25.2	26.0	25.2	27.2	26.4	**26.2**	**25.5**	**24.5**
Liquid & Powder Technologies	7.8	7.3	9.2	9.1	10.5	11.0	13.3	10.8	**10.3**	**9.7**	**9.7**
Food & Healthcare Technologies	10.4	9.6	6.1	8.1	6.8	11.1	7.2	13.5	**7.6**	**10.7**	**10.7**
Farm Technologies	12.5	6.8	15.2	11.3	15.7	13.6	12.2	13.4	**14.0**	**11.6**	**12.0**
Heating & Refrigeration Technologies	11.8	10.7	11.5	10.6	13.1	11.5	11.3	10.8	**11.9**	**10.9**	**10.2**
GEA*	**13.5**	**12.3**	**14.3**	**13.2**	**15.3**	**14.7**	**14.5**	**14.7**	**14.4**	**13.8**	**13.3**

*) Differences in the figures for the Group as a whole result from figures not shown for Other/consolidation.

FINANCIAL CALENDAR

April 30, 2024
Annual Shareholders' Meeting for 2023

May 8, 2024
Quarterly Statement for the period to March 31, 2024

August 7, 2024
Half-yearly Financial Report for the period to June 30, 2024

November 6, 2024
Quarterly Statement for the period to September 30, 2024

GEA Stock: Key data

WKN	660 200
ISIN	DE0006602006
Reuters code	G1AG.DE
Bloomberg code	G1A.GR
Xetra	G1A.DE

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