Engineering for a better world.

ANNUAL REPORT 2021

GEA.com

GEA achieves profitable growth in 2021 and proposes a dividend increase; Revenue and earnings growth expected in 2022

Order intake up substantially by 11.0 percent (organic growth of 14.0 percent)

Revenue up by 1.5 percent (organic growth of 4.3 percent)

Share of **service business** increased to 34.2 percent (previous year: 33.6 percent)

Book-to-bill ratio climbed steeply to 1.11 (previous year: 1.01)

EBITDA before restructuring expenses improved by 17.3 percent to EUR 624.8 million, growth across all divisions

Corresponding **margin** up significantly by 1.8 percentage points to 13.3 percent

ROCE improved significantly to 27.8 percent (previous year: 17.1 percent)

Net working capital as a percentage of revenue improved sharply to 5.1 percent (previous year: 7.9 percent)

Net liquidity more than doubled from EUR 245 million to EUR 500 million

Increased **dividend** of EUR 0.90 per share proposed (previous year: EUR 0.85)

As of the reporting date December 31, shares totaling EUR 94 million were repurchased as part of the **share buyback program** (EUR 300 million)

New strategy „**Mission 26**“ launched

Outlook for 2022: Organic revenue growth of >5 percent, EBITDA before restructuring expenses of between EUR 630 and 690 million and ROCE of between 24 and 30 percent

Financial Key Figures of GEA

(EUR million)	2021	2020	Change in %
Results of operations			
Order intake	5,222.5	4,703.0	11.0
Book-to-bill ratio	1.11	1.01	–
Order backlog	2,785.4	2,298.5	21.2
Revenue	4,702.9	4,635.1	1.5
Organic revenue growth in %[1]	4.3	–	–
Share of service revenue in %	34.2	33.6	57 bps
EBITDA before restructuring expenses	624.8	532.5	17.3
as % of revenue	13.3	11.5	180 bps
EBITDA	569.3	478.3	19.0
EBIT before restructuring expenses	443.7	331.4	33.9
EBIT	379.7	221.2	71.7
Profit for the period	305.2	96.8	> 100
ROCE in %[2]	27.8	17.1	1079 bps
Financial position			
Cash flow from operating activities	675.9	717.8	–5.8
Cash flow from investing activities	–112.5	–92.2	–22.0
Free cash flow	563.4	625.6	–9.9
Net assets			
Net working capital (reporting date)	240.3	366.8	–34.5
as % of revenue (LTM)	5.1	7.9	-280 bps
Capital employed (reporting date)[3]	1,467.9	1,642.0	–10.6
Equity	2,076.2	1,921.4	8.1
Equity ratio in %	35.3	33.8	156 bps
Net liquidity (+)/Net debt (-)[4]	499.8	245.3	> 100
GEA Shares			
Earnings per share (EUR)	1.70	0.54	> 100
Earnings per share before restructuring expenses (EUR)	1.99	1.03	93.7
Market capitalization (EUR billion; reporting date)	8.7	5.3	64.2
Employees (FTE; reporting date)	18,143	18,232	–0.5
Total workforce (FTE; reporting date)	19,252	19,268	–0.1

1) By „organic“, GEA means changes that are adjusted for currency and portfolio 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 165.8 million as of December 31, 2021 (prior year EUR 156.9 million).

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TO OUR SHAREHOLDERS

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FISCAL YEAR 2021

2021 was a very successful year for GEA. The company succeeded in further unlocking its potential ensuring profitable growth, despite the still challenging environment. The strong development of key financial indicators led to a five-year high in the share price. GEA also further improved its standing in key sustainability rankings from an already very good position.

During fiscal year 2021, GEA also took significant decisions setting the company's strategic course for the future. The company presented its "Mission 26" growth strategy at its Capital Markets Day at the end of September 2021. It is an ambitious strategic plan to ensure continued profitable and sustainable growth over the next five years. At its core are ambitious financial targets until 2026: GEA expects annual organic sales growth to reach 4 to 6 percent. The EBITDA margin before restructuring expenses is expected to increase to a record level of more than 15 percent, and ROCE (Return on Capital Employed) is expected to rise sharply to more than 30 percent.

Order intake
GEA's order intake increased by a significant 11.0 percent from EUR 4,703 million to EUR 5,222 million. This includes large orders (exceeding EUR 15 million) of EUR 293 million (previous year: EUR 273 million).

Revenue
Consolidated revenue rose by 1.5 percent from EUR 4,635 million to EUR 4,704 million. Organic consolidated revenue growth, which is adjusted for currency effects and acquisitions and disposals, totaled 4.3 percent.

EBITDA before restructuring measures
EBITDA before restructuring measures rose by a substantial 17.3 percent from EUR 532.5 million to EUR 624.8 million). Accordingly, the EBITDA margin before restructuring measures also increased by 1.8 percentage points to 13.3 percent. All divisions contributed to this growth.

ROCE (Return on Capital Employed)
GEA achieved a ROCE of 27.8 percent, which represents a clear improvement on the prior-year level of 17.1 percent.

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 working across five divisions and 62 countries, the group generated revenues of more than EUR 4.7 billion in 2021. GEA plants, processes, components and services enhance the efficiency and sustainability of production processes across the globe. 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 is listed on the German MDAX and the STOXX® Europe 600 Index and is also included in the DAX 50 ESG and MSCI Global Sustainability Indices.

Order intake

5,222

EUR million

Previous year: EUR 4,703 million

Revenue

4,703

EUR million

Previous year: EUR 4,635 million

EBITDA before restructuring measures

625

EUR million

Previous year: EUR 532 million

EBITDA margin before restructuring measures

13.3

percent of revenue

Previous year: 11.5 percent

Dividend proposal

0.90

EUR per share

Previous year: EUR 0.85

Employees

18,143

Full-time equivalents

Previous year: 18,232

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, which are at the heart of many production processes.

These 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 measures	EBITDA margin before restructuring measures	Employees
1,237	303	24.5	4,860
EUR million	EUR million	percent	Full-time equivalents
Previous year: EUR 1,192 million	Previous year: EUR 255 million	Previous year: 21.4 percent	Previous year: 4,565

LIQUID & POWDER TECHNOLOGIES DIVISION

Specialists in processing equipment and integrated solutions

Liquid & Filling Technologies .
Powder & Thermal Separation Technologies

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

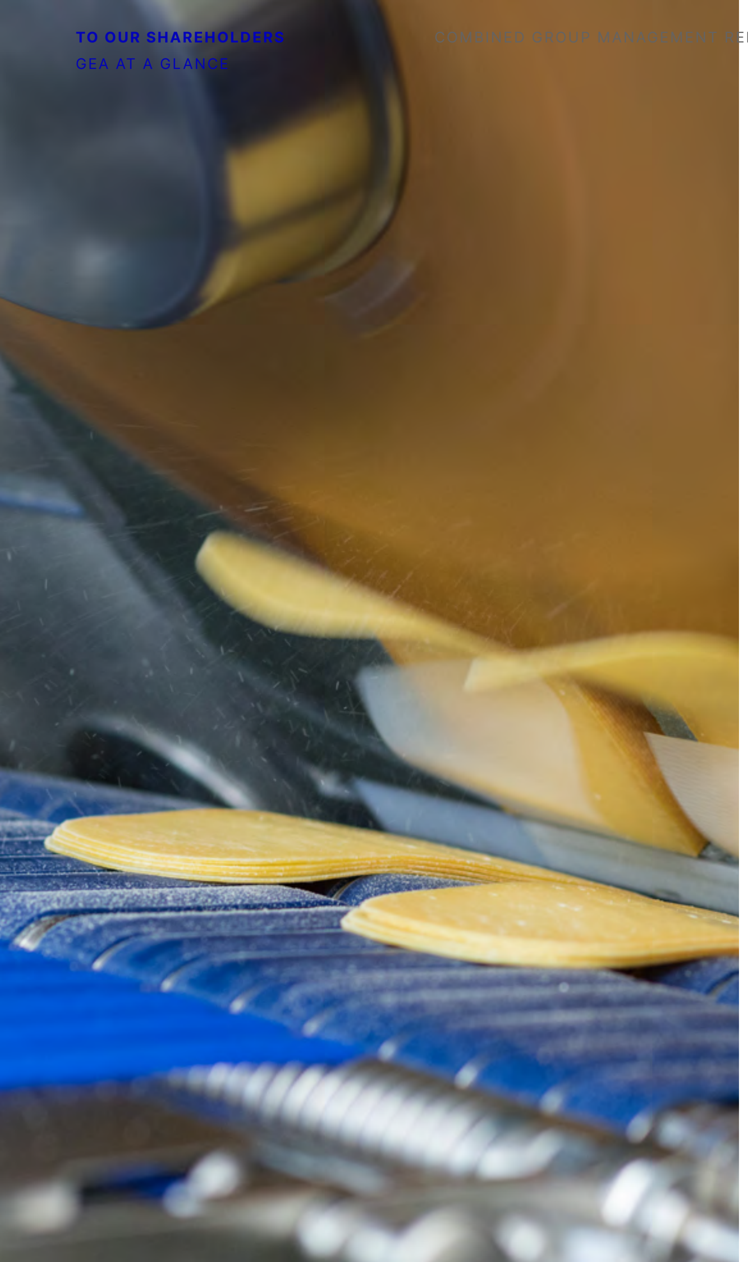
GEA designs, builds, configures and installs versatile and efficient equipment and technologies, processing lines and complete plants, for products as diverse as cell-based protein to polymers.

Revenue
1,546
EUR million
Previous year: EUR 1,666 million

EBITDA before restructuring measures
150
EUR million
Previous year: EUR 120 million

EBITDA margin before restructuring measures
9.7
percent
Previous year: 7.2 percent

Employees
5,241
Full-time equivalents
Previous year: 5,402



FOOD & HEALTHCARE TECHNOLOGIES DIVISION

Safe foods and medicines for a growing population

Pasta, Extrusion & Milling . Bakery . Slicing & Packaging . Food Solutions . Frozen Food . 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 equipment for freezing, slicing and packaging of food and milling.

GEA solutions for the pharmaceutical & nutraceutical industry include components, equipment and entire plants for processing solid, liquid as well as semi-solid products and high potent drugs either for batch or continuous production.

Revenue	EBITDA before restructuring measures	EBITDA margin before restructuring measures	Employees
937	100	10.7	3,577
EUR million	EUR million	percent	Full-time equivalents
Previous year: EUR 895 million	Previous year: EUR 79 million	Previous year: 8.8 percent	Previous year: 3,436

FARM TECHNOLOGIES DIVISION

Smart solutions for farmers now and in the future

Milking & Dairy Farming: Milking & Feeding, Manure

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

The portfolio also includes a wide range of hygiene products and chemicals to promote optimum udder health and highest milk quality.

Revenue	EBITDA before restructuring measures	EBITDA margin before restructuring measures	Employees
634	76	12.0	1,865
EUR million	EUR million	percent	Full-time equivalents
Previous year: EUR 625 million	Previous year: EUR 67 million	Previous year: 10.7 percent	Previous year: 1,888

HEATING & REFRIGERATION TECHNOLOGIES DIVISION

Industrial heating and cooling solutions for climate-friendly production processes

Turnkey installations . Compressors & compressor packages . Heat pumps . Chillers . Controls

Heating & Refrigeration Technologies combine extensive production process knowledge and integrated heating and cooling expertise to deliver sustainable, energy-saving solutions for customers in the food, beverage and other key industries.

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

Revenue	EBITDA before restructuring measures	EBITDA margin before restructuring measures	Employees
584	59	10.2	2,091
EUR million	EUR million	percent	Full-time equivalents
Previous year: EUR 663 million	Previous year: EUR 59 million	Previous year: 8.9 percent	Previous year: 2,502

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

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.

MARCUS A. KETTER, CFO

In addition to controlling, accounting, treasury, tax, risk management and investor relations, Marcus A. Ketter is responsible for global IT and business process management and outsourcing. He became a member of the Executive Board in May 2019.

Stefan Klebert

CEO, GEA GROUP AKTIENGESELLSCHAFT

Dear Shareholders,

2021 was a very successful year for GEA. We are better than ever at unlocking our company's potential and achieving profitable growth, despite a challenging environment. And our growth trend is set to continue, as outlined in our "Mission 26" strategy, which we unveiled in September 2021. Put simply: We are optimistic about what lies ahead!

To underscore this, we have also strengthened our brand. The current Annual Report provides you a good first impression. We have refreshed the corporate design and updated GEA's logo. The new branding emphasizes the key elements of our identity and corporate purpose: "Engineering for a better world." Today this is more relevant than ever. It remains at the heart of our brand and is the inspiration for our updated look.

Our confidence is underpinned by another very positive fiscal year, which progressed better than we had expected at the beginning of 2021. In concrete figures, this translates to a 1.5 percent increase in revenue to EUR 4.7 billion and corresponds to an organic rise of 4.3 percent. EBITDA before restructuring measures improved significantly, rising by 17.3 percent to EUR 624.8 million. At 13.3 percent, the EBITDA margin is at its highest level since 2016. Thanks to the 11.0 percent increase in order intake, the order backlog now stands at EUR 2.8 billion. Achieving this record level has further bolstered our growth ambitions. In other words, we are well on track to achieve our upgraded financial targets for 2022.

INTERVIEW STEFAN KLEBERT

The strong development of our financial indicators led to our share price reaching a five-year high. We successfully regained the capital market's trust. GEA shares significantly outperformed major stock market indices in 2021, including the DAX 50 ESG, MDAX and STOXX® Europe TMI Industrial Engineering. For fiscal year 2021, we will propose to increase the per share dividend payout by EUR 0.05 to EUR 0.90 at the Annual General Meeting.

We are also very proud to report that we further improved our standing in key sustainability rankings from an already very strong position. For example, CDP awarded us an "AA" rating for climate protection and water management, placing GEA among the most sustainable companies in Germany. We were also rated "AA" in the MSCI ESG ratings and are among the top two percent of companies in the mechanical engineering sector worldwide, with a "Gold" rating from EcoVadis.

Our current position is largely the result of the wonderful work of our colleagues. Their commitment has helped steer GEA on a sustainable path to success and enabled us to successfully withstand the impact of the coronavirus pandemic again in 2021. Buoyed by the motivation and energy that runs throughout the company, we were able to deliver strong performance and reliable services to our customers despite what remains a very difficult environment. On behalf of the entire Executive Board, I would like to extend our heartfelt thanks to all GEA teams for this.

We are delighted with our achievements. But we cannot rest on our laurels, as we need to start laying the groundwork for tomorrow's success today. During fiscal year 2021, we made significant decisions that set GEA's strategic course for the future.

We presented our "Mission 26" growth strategy at our Capital Markets Day at the end of September 2021. This ambitious strategic plan aims to ensure that we continue our profitable and sustainable growth path over the next five years. Its cornerstones are demanding financial targets up to 2026: We expect our annual organic sales growth to reach 4 to 6 percent. The EBITDA margin before restructuring expenses should increase to a record level of more than 15 percent. We also anticipate a significant rise of more than 30 percent in group-wide ROCE.

How do we plan to achieve these targets? We are focusing on seven key levers. These range from **sustainability**, **innovation & digitalization** and **new food** to three excellence initiatives in the areas of **sales**, **service** and **operations**, to reviewing potential **acquisitions** to strengthen our portfolio. Please see the chapter "Fundamental Information about the Group" in the section "Strategy" for an overview.

I would like to focus on two of these areas and adress them in greater detail here.

Sustainable economic activity is crucial for the future of our planet. We see major opportunities for our company in this area, given awareness around sustainability is growing so rapidly. We can offer our customers specific added value with increasingly resource-efficient products. To accelerate our progress, we presented one of the most comprehensive and ambitious climate strategies in the mechanical and plant engineering sector in 2021. We intend to achieve net-zero greenhouse gas emissions by 2040. This would put us ten years ahead of the European Union and five years ahead of Germany. Furthermore, GEA has set demanding ESG targets that will help us fulfil our corporate responsibility in all areas. Due to its significance, we have also connected ESG targets to Executive Board remuneration.

Another field addressed in our "Mission 26" is new food. This includes plant-based, as well as cell-based and insect-based protein. There are many indications that demand in this area will continue to rise at pace. As the only technology supplier to the food and beverage industry that covers the entire value chain from a single source, we are superbly positioned to serve this market. This expertise means we are well placed to establish ourselves as a market leader. In the past fiscal year, we already recorded orders amounting to more than EUR 120 million in this business area.

Sustainability and new food are just two of the seven strategic levers of "Mission 26". We are approaching all these areas with great energy and systematic planning. GEA products and services enjoy an excellent reputation and are in demand all over the world. Our company harbors huge potential and a team spirit that inspires and unites us. This means we have everything we need to continue our strong trajectory and lead the company to continued future success.

Thank you for your trust in us. We look forward to continuing our journey with you.

Sincerely,

Stefan Klebert

Klaus Helmrich
SUPERVISORY BOARD CHAIRMAN OF
GEA GROUP AKTIENGESELLSCHAFT

Report of the Supervisory Board

During fiscal year 2021, 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 our duties. In addition, the Executive Board – in compliance with its obligation to inform – 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, corporate planning, 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 motions for resolution 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 so doing, 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 Committee, the Chairwoman of the Audit Committee, and the Chairwoman of the Innovation Committee (formerly the Technology 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, planning, business progress, risk exposure, risk management and compliance. The Chairwoman of the Audit Committee remained in regular contact with members of the Executive Board, in particular with the CFO, in order to be informed of current developments relevant to the work of the Audit Committee and to discuss it if necessary. Furthermore, the Chairwoman of the Audit Committee maintained regular contact with the auditors and the Head of Internal Audit. Meetings on relevant topics were also held with individual department heads. In recent years, regular contact was likewise established between the Chairman of the Supervisory Board and investor representatives on topics within the Supervisory Board's area of responsibility. Most recently, a Governance Roadshow was held by the Chairman of the Supervisory Board in early 2021. Suggestions and criticisms of GEA's corporate governance practices expressed during these discussions with investors have been included in the Supervisory Board's work.

On a regular basis, the Supervisory Board received specific information on the development of order intake, revenue and earnings, the employment situation in the group and its divisions, as well as on the latest developments concerning the business, competition and the Covid-19 pandemic, including their impact on the group and its business activities. Detailed explanations were provided on deviations of business performance from plans and targets on the basis of 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 motions for resolution submitted by the Executive Board insofar as this was appropriate or required by law, the provisions of the Articles of Association or the Rules of Procedure. For justified reasons, 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 2021, a total of seven meetings of the Supervisory Board were held. The Supervisory Board addressed the following key topics in particular at its meetings in the reporting period: corporate strategy and growth strategy, financial reporting and financial performance, employee satisfaction, compliance, the Covid-19 pandemic and its impact on GEA, as well as the subjects of markets, customers and customer satisfaction, and competition. 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 February 9, 2021 meeting, the Supervisory Board dealt with the preliminary key figures for 2020 and the progress and results of the Governance Roadshow conducted by the Chairman of the Supervisory Board in January 2021. In addition, the members of the Supervisory Board were informed about the current status of the sale of compressor manufacturer GEA Bock. Furthermore, the Supervisory Board reviewed target achievement as part of the Executive Board compensation review for 2020 as well as defining targets for the reporting period.

At the Supervisory Board meeting on March 3, 2021, the annual financial statements, including the appropriation of profits, were adopted and the consolidated financial statements for the 2020 fiscal year were approved. In addition, the Supervisory Board conducted a detailed review of the Chief Compliance Officer's report on the penultimate 2020 fiscal year. At this meeting, the Supervisory Board also adopted proposed resolutions related to specific agenda items for the virtual Annual General Meeting. In addition, the Executive Board informed the Supervisory Board about the results of the 2020 employee survey.

The company's Supervisory Board was reconstituted following the Annual General Meeting on April 30, 2021. Klaus Helmrich was elected Chairman and IG-Metall representative Rainer Gröbel was elected Deputy Chairman of the Supervisory Board. The members of the committees and their respective chairmen were likewise elected. In addition, Prof. Dr. Annette G. Köhler was appointed as the independent financial expert.

At its meeting on June 24, 2021, the Supervisory Board discussed the sale of the Heating & Refrigeration Technologies Division's activities in Italy, Spain, and France and approved the disposal of all shares in GEA Refrigeration Ibéria S.A., Spain, and GEA Refrigeration Italy S.A., Italy. Furthermore, the Supervisory Board addressed current initiatives within the area of responsibility of the Chief Operating Officer, particularly in relation to procurement and production.

On August 12, 2021, the Supervisory Board held its annual strategy meeting, at which the Executive Board presented the fundamentals and guiding principles of the company's new medium-term strategy for the five years ending at the close of 2026. The "Mission 26" project focuses on the topics of sustainability, digitalization & innovation, new Food, sales excellence, service excellence, operational excellence and acquisitions.

On 21 September 2021, an advanced training workshop was held for the Supervisory Board on financial policy issues, in particular, on the key points of the Act to Strengthen Financial Market Integrity (FISG), and selected sustainability issues. The members of the Supervisory Board are also provided support in the implementation and financing of necessary or useful training measures – for example, on topics relevant to the Audit Committee – outside of such seminars organized by the company.

The Supervisory Board again addressed the "Mission 26" project at its meeting on September 22, 2021 as part of the presentation for Capital Markets Day in London. In addition, the Supervisory Board was informed about current topics in the area of compliance.

At its meeting on December 16, 2021, the Supervisory Board deliberated on the medium-term planning for the years 2022–2026 and approved the budget for 2022. Succession planning for the Executive Board, management development and the 2021 employee survey were also covered in the December meeting. In addition, the Supervisory Board addressed the preliminary 2021 target achievement for variable Executive Board compensation and defined and adopted performance criteria for the annual bonus for the 2022 fiscal year and the 2022 LTI tranche. The Supervisory Board was careful to ensure that both the performance criteria defined for the 2022 LTI tranche as such and their calibration directly contribute to the achievement of the targets set as part of the "Mission 26" strategy.

Work of the committees

The Presiding Committee held five meetings in the past fiscal year and focused on ongoing M&A projects, the corporate strategy "Mission 26", Executive Board matters (in particular the reappointment and contract extensions of two Executive Board members, Stefan Klebert and Marcus A. Ketter), as well as succession planning and personnel and management development, with a particular focus on strict diversity and inclusion measures to increase the proportion of women at senior executive level.

The Audit Committee held four meetings during the fiscal year. In the presence of the auditors and the CFO, it focused on the annual financial statements in conjunction with the consolidated financial statements for 2020, the quarterly financial statements and half-yearly financial report for 2021, 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) reports on information security issues at each regular meeting of the Audit Committee. The Audit Committee also deliberated on the accounting process and was briefed at regular intervals on the risks and opportunities faced by the company. The auditors provided a detailed explanation of their audit activities, the audit process and the audit results to the Audit Committee, which also dealt with audit quality.

In addition, the Audit 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, determined 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 2021.

In the year under review, the Nomination Committee was convened on four occasions and dealt with matters of Supervisory Board succession planning.

In fiscal year 2021, the members of the Innovation Committee (formerly the Technology Committee) held two meetings. The committee focused on innovation work and digitalization activities within the Group. Important innovation projects such as novel foods (new Food) and projects that focus on sustainability were presented and discussed at these meetings. The actual innovation process and associated activities within the Group were examined in greater detail at a later meeting. Furthermore, the new Chief Digital Officer reported on his area of responsibility and the Group's digitalization strategy. Prof. Dr. Jürgen Fleischer was elected as successor to Dr. Molly P. Zhang, who stepped down as Chairwoman of the Innovation Committee on December 31, 2021.

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 in the wake of the respective committee meetings.

Length of Supervisory Board membership and disclosure of individual meeting attendance

Supervisory Board member	Lenght of time on the Supervisory Board	End of current term	Supervisory Board and committee meetings in 2021	Attendance	Present
Dr. Helmut Perlet (Chairman)[1]	15 years	2021	8	8	100 %
Klaus Helmrich (Vorsitzender)[2]	1 year	2025	12	11	92 %
Kurt-Jürgen Löw (Deputy Chairman)[1]	14 years	2021	4	4	100 %
Rainer Gröbel (Deputy Chairman)[2]	21 years	2025	12	12	100 %
Ahmad Bastaki[1]	17 years	2021	7	7	100 %
Claudia Claas[2]	1 year	2025	8	8	100 %
Roger Falk[2]	1 year	2025	10	10	100 %
Prof. Dr. Jürgen Fleischer[2]	1 year	2025	7	7	100 %
Colin Hall	3 years	2025	13	13	100 %
Michaela Hubert[1]	4 years	2021	4	4	100 %
Michael Kämpfert	15 years	2025	8	8	100 %
Jörg Kampmeyer[4]	0,25 years	2022	-	-	-
Eva-Maria Kerkemeier[1]	9 years	2021	2	2	100 %
Prof. Dr. Annette G. Köhler	1,5 years	2025	11	11	100 %
Brigitte Krönchen	7 years	2025	13	11	85 %
Holly Lei[2]	1 year	2025	5	5	100 %
Prof. Dr. Cara Röhner[2]	1 year	2025	5	5	100 %
Jean Spence[1]	9 years	2021	5	5	100 %
Dr. Molly P. Zhang[3]	4,5 years	2021	10	9	90 %

1) Left on April 30, 2021
2) Since April 30, 2021
3) Left on December 31, 2021
4) Court-appointed since January 1, 2022

Whenever Supervisory Board members were unable to attend meetings of the Supervisory Board or its committees, they asked to be excused and usually cast their votes in writing.

Corporate Governance

The Supervisory Board continuously monitors the evolution of the standards set out by the Corporate Governance Code. The current Declaration of Conformity is based on the German Corporate Governance Code (GCGC) as amended on December 16, 2019, which has been in force since its publication in the Federal Gazette by the Federal Ministry of Justice and Consumer Protection (BMJV) on March 20, 2020. On December 16, 2021, 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 gea.com. Further information on corporate governance can be found in the Corporate Governance Statement.

Annual financial statements and consolidated financial statements 2021

The 2021 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 since fiscal year 2018 has been Michael Jessen.

In the presence of the auditors, the combined 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 2021 were extensively discussed during the meeting of the Audit Committee on March 1, 2022 and at the Supervisory Board meeting for balance sheet approval held on March 2, 2022. 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 performed by the Audit Committee and after conducting its own scrutiny, the Supervisory Board agreed with the auditors' findings at its meeting held on March 2, 2022, and found that there were no objections to be raised. The Supervisory Board approved the 2021 consolidated financial statements, the 2021 annual financial statements of GEA Group Aktiengesellschaft, the remuneration report and the combined management report. In doing so, the annual financial statements of GEA Group Aktiengesellschaft have been 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 2021 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 concept 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 Committee also conducted its own audit proceedings to ensure that the data submitted complied with the statutory requirements; the Chairwoman of the Audit Committee informed the Supervisory Board accordingly.

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

At the Annual General Meeting on April 30, 2021, shareholder representatives on the Supervisory Board were reelected for a four-year term. Prof. Dr. Annette G. Köhler, Colin Hall and Dr. Molly P. Zhang were reelected to the Supervisory Board. Holly Lei, Prof. Dr. Jürgen Fleischer and Klaus Helmrich were elected for the first time as new members of the Supervisory Board. Dr. Helmut Perlet, who had held the office of Chairman since April 20, 2016, as well as Jean E. Spence and Ahmad M.A. Bastaki, who had all been members of the Supervisory Board for many years, decided not to stand for re-election and resigned from the Supervisory Board effective April 30, 2021.

The employee representatives on the Supervisory Board were first appointed by court order of the Düsseldorf Local Court on April 27, 2021 and then newly elected in the fall of 2021. These include the previous incumbent members Brigitte Krönchen and Michael Kämpfert and the new members Claudia Claas and Roger Falk as representatives of the employees in the company. In addition, the two IG Metall representatives, the previous Supervisory Board member Rainer Gröbel and the new member Prof. Dr. Cara Röhner, were also appointed or elected to the Supervisory Board by court order. Kurt-Jürgen Löw, Deputy Chairman of the Supervisory Board, Michaela Hubert and Eva-Maria Kerkemeier, all representatives of the employee side, stepped down from the Supervisory Board with effect from April 30, 2021.

At the new Supervisory Board's constitutive meeting on April 30, 2021, Klaus Helmrich was elected Chairman and Rainer Gröbel, IG-Metall representative, was elected Deputy Chairman of the Supervisory Board. Prof. Dr. Annette G. Köhler was appointed Chairwoman of the Audit Committee and Independent Financial Expert, and Dr. Molly P. Zhang was appointed Chairwoman of the Innovation Committee.

Dr. Molly P. Zhang resigned as a member of the Supervisory Board effective December 31, 2021. By order of the Düsseldorf Local Court dated December 22, 2021, Jörg Kampmeyer was appointed as a new member of the Supervisory Board effective January 1, 2022. At its meeting held on December 16, 2021, the Supervisory Board appointed Brigitte Krönchen as second Financial Expert to the Supervisory Board. Brigitte Krönchen, as a long-time member of the Audit Committee, is responsible for the field of "Accounting" for purposes of section 100 (5) of the AktG, while Prof. Dr. Annette G. Köhler, who remains an independent financial expert within the meaning of Recommendation D.4 of the GCGC as amended on December 16, 2019, is responsible for the field of "Audit" for the purposes of section 100(5) of the AktG. In addition, Prof. Dr. Annette G. Köhler was elected to the Nomination Committee as successor to Dr. Molly P. Zhang. With effect from the date of his appointment by the court, Jörg Kampmeyer was also elected to the Innovation Committee as successor to Dr. Molly P. Zhang.

At its meeting on February 9, 2021, the Supervisory Board extended the appointment of Stefan Klebert as Chairman of the Executive Board and Labor Director by five years until December 31, 2026.

In addition, on June 24, 2021, the Supervisory Board extended the appointment of Marcus A. Ketter as the Company's Chief Financial Officer by five years until May 19, 2027.

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 Group, thanking them for their personal commitment and all their work during the past fiscal year.

Düsseldorf, March 2, 2022

Klaus Helmrich
Chairman of the Supervisory Board

GEA SHARES/INVESTOR RELATIONS

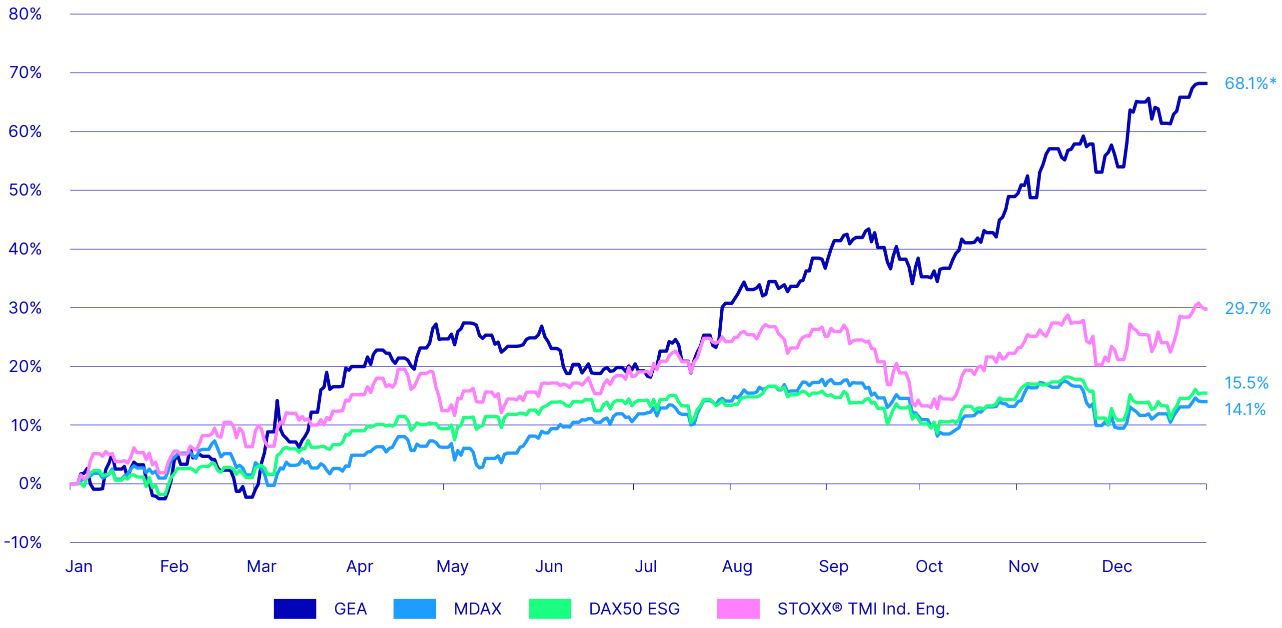
GEA shares in the capital markets

GEA's share price significantly outperformed the market as a whole in fiscal year 2021, rising by 64.2 percent to EUR 49.09. Although there were signs of a gradual recovery from the Covid-19 pandemic, various pandemic-related supply bottlenecks led to delivery problems in the global supply chains and a shortage of semiconductors, along with other issues, from the second half of the year onwards. In addition, inflation risks and rising material costs slowed the recovery. These factors put more pressure on the MDAX than on GEA shares, which performed significantly better from the second quarter onwards in particular.

In 2021 as a whole, GEA Group Aktiengesellschaft shares rose by 64.2 percent, or by 68.1 percent taking reinvestment of the EUR 0.85 dividend payment into account. This led to significant outperformance against the MDAX (+14.1 percent), the European sector index STOXX® Europe TMI Industrial Engineering +29.7 percent) and the DAX 50 ESG (+15.5 percent). The share price reached its high point for the year with a closing price (XETRA) of EUR 48.10 on December 29 and its low point for the year on January 29, closing at EUR 28.54. The share price ended the year at EUR 48.09.

GEA shares have been a long-running part of the MDAX and other national and international indices for many years. In addition, GEA was among the 50 companies included in the DAX 50 ESG Index at its inception in 2020 thanks to GEA's exemplary approach to environmental, social and corporate governance issues.

Performance of GEA shares in 2021 compared with benchmark indices



*) Taking into account the reinvestment of the dividend payment of EUR 0.85

Shareholder structure

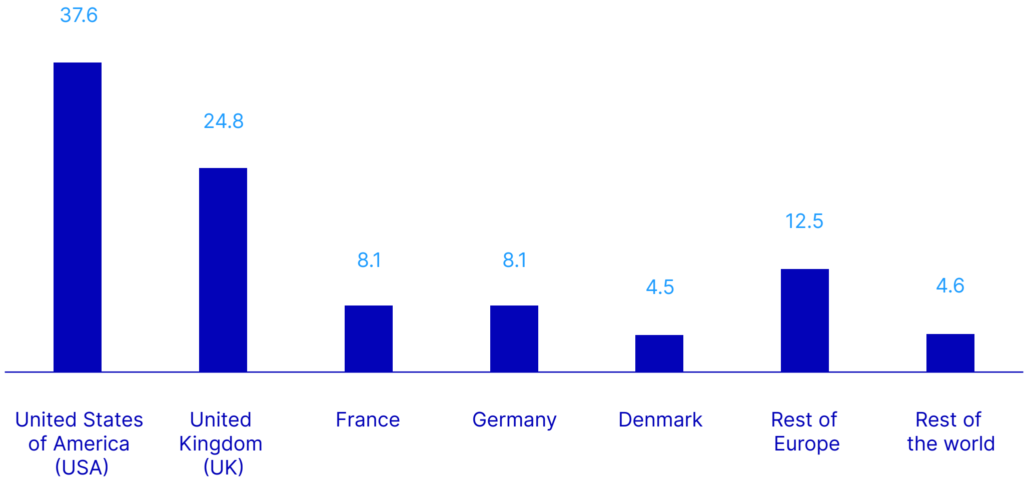
The number of shares outstanding was 178,195,139 at year end, which represented a decrease compared to the prior year (prior year: 180,492,172 shares). As part of the share buyback program commenced on August 16, a total of 2,297,033 outstanding shares were repurchased and are now held as treasury shares. Market capitalization at the end of 2021 was approximately EUR 8.7 billion (previous year: EUR 5.3 billion).

In 2021, as in previous years, GEA performed regular analyses of its shareholder structure. The latest analysis identified 97.1 percent of all shares outstanding. According to the results, institutional investors held 78.1 percent of all shares, while 15.1 percent were held by major shareholders and 3.9 percent by retail investors.

GEA still has two investors – Kuwait Investment Office (KIA) and Oliver Capital (the principal shareholder of Groupe Bruxelles Lambert) – that are deemed to be major shareholders according to the definition applied by the German stock exchange (Deutsche Börse AG) and therefore do not count as free float. According to the latest information available to the company, KIA held a stake of 8.5 percent (approximately 15.2 million shares) and Oliver Capital held a stake of 6.6 percent (approximately 12.0 million shares). According to Deutsche Börse AG, the free float was approximately 84 percent as of the reporting date.

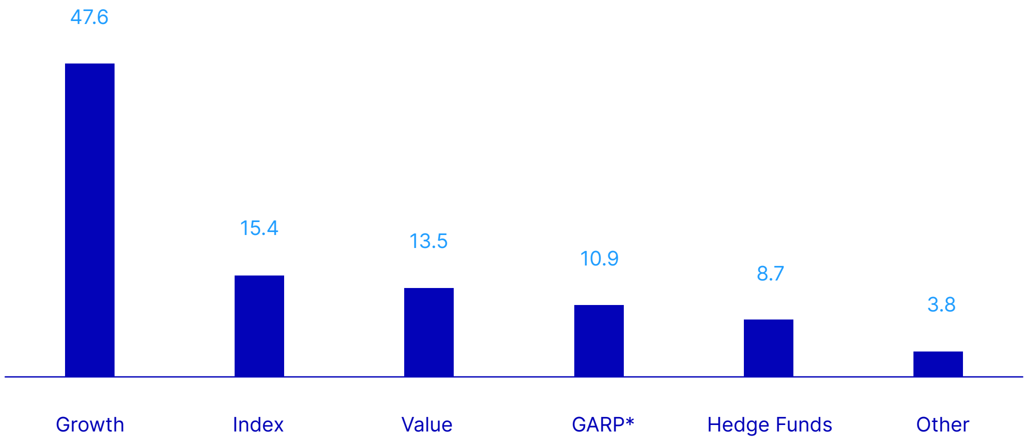
Regional breakdown of institutional shareholders*

(in %)



*) Based on 78.1% of identified shares held by institutional investors

Investment styles of institutional investors
(in %)



*) Growth at a reasonable price
Based on 78.1% of identified shares held by institutional investors

Investor relations activities

In addition to quarterly financial reporting, GEA engages in regular dialog with capital market participants and has continued this practice during the fiscal year primarily by means of virtual roadshows and conferences. GEA kept in close contact with investors in 2021 by participating in 12 mostly virtual investor conferences and organizing 23 mostly virtual roadshows – some of which were attended by the company's CEO and CFO. During these events, GEA held more than 219 meetings. Discussions focused on the impact of the Covid-19 pandemic on the business performance, the progress of measures initiated to increase efficiency as well as the 2022 financial targets.

On September 29, GEA presented its new "Mission 26" strategy at the Capital Markets Day in London. During this event, held both in person and virtually for participating analysts and investors, management provided a comprehensive overview of the company's financial targets for the next five years along with its seven key levers to accelerate sustainable and profitable growth.

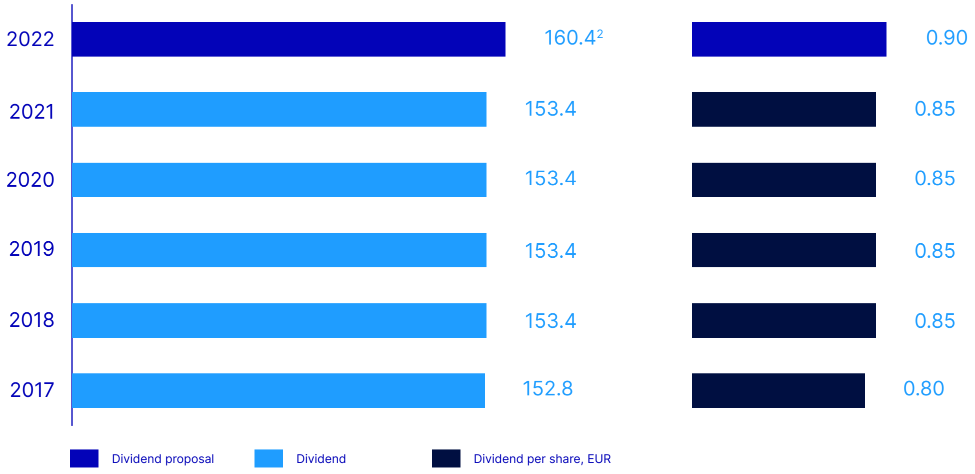
Dividend policy

GEA Group AG has a strong and sustainable business model. The company 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. In addition, in the interest of an attractive dividend policy, GEA Group AG aims to pay a dividend that is 5 cents higher than the previous year's figure. This provision already applies to the dividend proposal for fiscal year 2021.

Accordingly, and on the basis of the very good earnings development in fiscal year 2021, the Executive and Supervisory Boards will propose to the Annual General Meeting that a dividend of EUR 0.90 per share be paid, EUR 0.05 higher than in the previous year. This corresponds to a dividend yield of 1.9 percent based on the closing price on December 31, 2021.

Dividend payments[1] for the last 5 years and dividend proposal

(EUR million)



1) Dividend payments respectively for the preceding fiscal year
2) Based on dividend proposal and number of shares outstanding as of December 31, 2021

Credit ratings/Debt market

Rating agencies assess the ability of a company to honor its financial obligations. 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.

The international agencies Moody's and Fitch have been publishing credit ratings on GEA Group Aktiengesellschaft for many years. In April 2021, Moody's affirmed the Baa2 credit rating and raised the outlook from negative to stable. This stabilization in outlook was justified by positive results for fiscal year 2020. In addition, Fitch raised the credit rating from BBB- to BBB in April 2021. The outlook was unchanged at stable. The upgrade in credit rating was based on the strong free cash flow development in fiscal year 2020 and likewise reflects GEA Group Aktiengesellschaft's robust business model. As a result, GEA Group Aktiengesellschaft's credit ratings remained within the investment grade range.

	2021		2020	
Agency	Rating	Outlook	Rating	Outlook
Moody's	Baa2	stable	Baa2	negative
Fitch	BBB	stable	BBB-	stable

The ratings enable GEA to raise funding through various debt instruments available on the international financial markets. This highlights how important it is for GEA to maintain its investment grade rating and continue to optimize its financial results going forward.

In total, GEA has bank credit lines in the amount of EUR 988,1 million (prior year EUR 1,431.0 million), of which only EUR 260,4 million had been utilized as of the reporting date (prior year EUR 417.2 million). Further information on credit lines and their utilization can be found in the "Report on Economic Position" in the section "Liquidity".

COMBINED GROUP MANAGEMENT REPORT

02

FUNDAMENTAL INFORMATION ABOUT THE GROUP

Group business model

Combined consolidated and single entity financial statements of GEA Group Aktiengesellschaft in the management presentation

GEA Group Aktiengesellschaft is home to central management functions of the group. It has profit and loss transfer agreements in place with its main domestic subsidiaries. In addition, GEA Group Aktiengesellschaft conducts financial and liquidity management for the entire group. GEA Group Aktiengesellschaft and GEA Group Service GmbH also provide their subsidiaries with services from the Global Corporate Center on the basis of service agreements.

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). All financial statements relate to the 2021 fiscal year (January 1 to December 31, 2021).

The management report also contains the non-financial statement along with the combined corporate governance statement. 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).

Organization and structure

The Group

The GEA Group is an internationally active technology group specializing in machinery and plant as well as 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 ever more sustainable and efficient. GEA is one of the largest suppliers of systems and components to the food, beverage and pharmaceutical industries, as well as to a wide range of other processing industries, e.g. chemicals.

The group is a specialist in its respective 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. For more details, please refer to the “Research and Development” section in “Fundamental Information about the Group.”

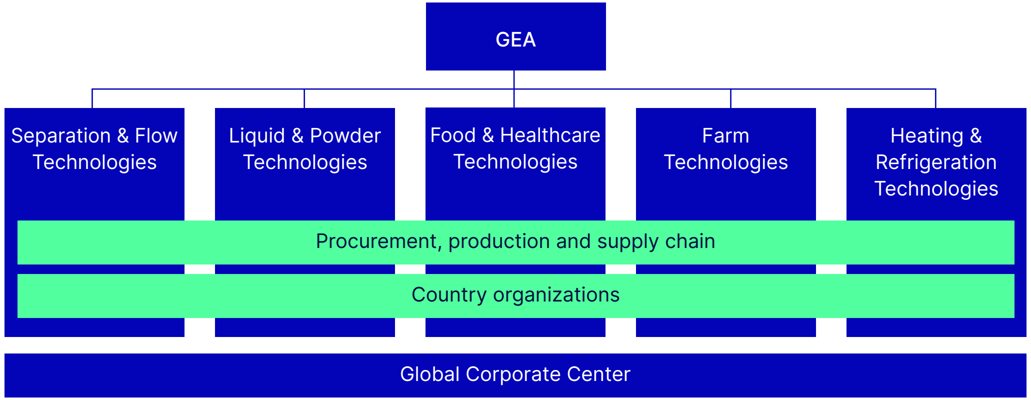
The group's enduring success is based on a number of global megatrends, including:

1. Steady global population growth
2. Significant growth of the middle class
3. Growing desire for healthy, functional and safe nutrition
4. High demand for efficient production methods that also conserve valuable resources

Group structure

Since January 1, 2020, the GEA Group has been divided into five divisions, each comprising up to six business units. These divisions are based on comparable technologies and have leading market positions. Each division is headed by a management team consisting of three members: a divisional CEO, a divisional CFO and a divisional CSO (Chief Service Officer). The CSO role for each division underscores the significance of the high-margin and growing service business for GEA.

As of January 2021, GEA made some minor adjustments to its divisional structure so that individual companies whose activities related to two or more divisions, but were allocated to just one, are now broken down by their respective business activities. In doing so, GEA has created greater divisional precision and a clearer structure.



Five divisions

Separation & Flow Technologies

Separation & Flow Technologies encompasses process engineering components and machines that are at the heart of many production processes: Separators, decanters, homogenizers, valves and pumps.

Liquid & Powder Technologies

Liquid & Powder Technologies provides, among other things, process solutions for the dairy, beverage, food and chemical industries. The portfolio includes liquid processing and filling, concentration, purification, drying, powder handling and packaging, as well as systems for emission control.

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, pasta production, baking, slicing, packaging, confectionery as well as frozen food processing. For the pharmaceutical industry, the product range includes granulation systems and tablet presses.

Farm Technologies

Farm Technologies offers integrated customer solutions for efficient 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

Heating & Refrigeration Technologies offers, as a specialist in industrial refrigeration and temperature control, sustainable energy solutions for a wide array of industries including food, beverage, dairy, as well as oil and gas.

Procurement, Production and Supply Chain

As per January 1, 2020, GEA established the new office of the COO (Chief Operating Officer) as a separate Executive Board role that encompasses GEA's procurement, production and logistics (supply chain) activities. Both the strategic and the operational purchasing organization have been globally reorganized over the past two years. The structure is characterized by clear profit responsibility for GEA's divisions and regions, which is controlled by central category and performance management.

In addition to the classic cost-cutting targets, the focus here is increasingly on securing material availability 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 digitization as well as the transformation to an agile international manufacturing network with the clear goal of CO_2-neutral production by 2040.
The newly created Supply Chain unit optimizes customer delivery times and delivery reliability while at the same time reducing logistics costs and inventories.

Country organization

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

Global Corporate Center

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

Discontinued operations

Discontinued operations comprise the remaining risks related to such operations and the ongoing process of winding down operations discontinued in the past.

Significant changes

Supervisory Board

At the Annual General Meeting of GEA Group Aktiengesellschaft on April 30, 2021, there were six personnel changes on the company's Supervisory Board, which comprises twelve members. At the Supervisory Board's constitutive meeting immediately following the Annual General Meeting, Klaus Helmrich – former board member of Siemens AG – was elected as the new Chairman. In total, the changes affected three board members representing shareholders as well as three board members representing employees. As of the reporting date, the board continues to have equal gender representation, with six women and six men from each group.

The shareholder representatives were newly elected for a four-year term. Prof. Dr. Annette G. Köhler, Dr. Molly P. Zhang and Colin Hall were re-elected. In addition, Holly Lei, Klaus Helmrich and Prof. Dr. Jürgen Fleischer were appointed as new members of the Supervisory Board. These new members were appointed in light of resignations of Dr. Helmut Perlet, Jean E. Spence and Ahmad M.A. Bastaki, who had been members of the Supervisory Board for many years and who did not stand for re-election.

On the employee side, current Supervisory Board members Brigitte Krönchen, Michael Kämpfert, along with new members Claudia Claas and Roger Falk, were appointed as employee representatives on the Supervisory Board by resolution of the Düsseldorf Local Court. Dr. Cara Röhner and current member Rainer Gröbel, who represent IG Metall, were also appointed by the court.

On December 23, 2021, GEA Group Aktiengesellschaft announced that the current employee representatives on the supervisory board were confirmed for the next four years at the election held on November 25, 2021. Furthermore, Jörg Kampmeyer, managing partner of Gebr. Knauf KG, has been appointed as a new member of the Supervisory Board of GEA Group AG by the Düsseldorf District Court effective January 1, 2022. He succeeds Dr. Molly P. Zhang, who resigned from her position as a member of the Supervisory Board for personal reasons as of December 31, 2021.

Executive Board

There were no changes in the composition of the Executive Board during the year under review. On February 9, 2021, the Supervisory Board extended the contract of Executive Board Chairman Stefan Klebert by five years until December 31, 2026. On June 24, 2021, the contract of CFO Marcus A. Ketter was also extended by five years until May 19, 2027.

Strategy

„Mission 26“: Acceleration of profitable growth through 2026

GEA presented its new medium-term strategy “Mission 2026” at the Capital Markets Day in London on September 28, 2021. “Mission 26” is based on seven key levers intended to accelerate sustainable, profitable growth. As part of this strategy, focal points include sustainability, innovation & digitalization, new food and excellence initiatives in the areas of sales, service, as well as procurement and production. In addition, the company is examining targeted acquisitions.

GEA set ambitious financial targets for itself through 2026 embodied in “Mission 26.” Average organic revenue growth of 4.0 percent to 6.0 percent per year is expected, which is intended to result in revenue of some EUR 6 billion. The EBITDA margin before restructuring measures should increase to more than 15 percent. Return on capital employed (ROCE) on a group-wide basis is intended to show a significant improvement to more than 30 percent.

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, GEA expects strong free cash flow generation totaling approximately EUR 2 billion from 2022 to 2026.

GEA intends to have its shareholders participate in this growth in the form of sustainable increases in dividends.

The seven levers for accelerating profitable growth:

Sustainability

Sustainability is an essential component of “Mission 26.” In addition to the climate targets announced in June 2021 – net zero ambition for 2040 and interim targets through 2030 (reduce greenhouse gas emissions by 60 percent in Scope 1 and 2 and by 18 percent in Scope 3 compared to the 2019 base year) – GEA has set itself further ambitious ESG targets. This set of actions focuses on ecologically sustainable customer solutions and responsible operations. For example, across the globe, GEA plants, processes and components can contribute significantly to the reduction of carbon emissions, plastic usage and food waste in production. GEA is likewise striving to be the employer of choice within its own industry.

Innovation & Digitalization

With its technologies, GEA is very well positioned to benefit from the megatrend-driven growth of its markets. The company also benefits from its long-standing customer relationships. First of all, GEA’s customers trust its products, and second, close contact with customers enables the company to continuously improve its products and develop new ones as well.

GEA aims to increase the share of sales of products that are less than five years old from its current level of 10 percent to some 30 percent. The company plans to increase its Research & Development spending by approximately 45 percent over the next few years in order to achieve this objective.
In addition to introducing new products, GEA will increasingly offer its customers digital solutions to use their own processes and GEA equipment and systems even more efficiently.

New food

The worldwide new food trend in particular is opening up new market opportunities for GEA. These trends include alternative products such as plant-based dairy and meat products, insect-based proteins, fermented proteins and in vitro meat. Within this dynamically growing market, GEA is planning to expand its already strong market position and become a market leader. GEA is ideally positioned to meet growing demand in this sector thanks to its strengths in scaling industrial applications and its position as a full-range supplier.

GEA achieved an order intake of more than EUR 120 million in 2021 in the new food segment with newly developed and existing equipment, which is expected to increase to more than EUR 400 million in 2026.

Excellence initiatives in sales, service and operations

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 4.0 to 5.0 percent annually from new machinery up to 2026.

Additional growth potential has been identified in the service sector, which is characterized by stable growth and profitability. By 2026, revenue should be increasingly generated by previously installed machinery, plant and equipment. Furthermore, plans also call for evolving the service business from an as-needed basis to a regularly-recurring business model. This approach is expected to generate average organic service revenue growth of 5.0 percent to 6.0 percent annually through 2026.

GEA will continue to implement previously initiated optimization measures in procurement, 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. Between 2022 and 2026, additional optimization measures in procurement (EUR 90 million) and production (EUR 60 million) are expected to result in a total net contribution to EBITDA of EUR 150 million.

Acquisitions

Strong cash generation and a solid balance sheet will enable GEA to grow externally as well. Accordingly, the company will examine appropriate acquisitions with the objective of bolstering its portfolio.

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 for a broad range of customer 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 precisely tailored to their individual requirements. Customers also benefit from GEA's flexible production concepts, which should ensure fast throughput and low costs, and minimize tied-up capital.

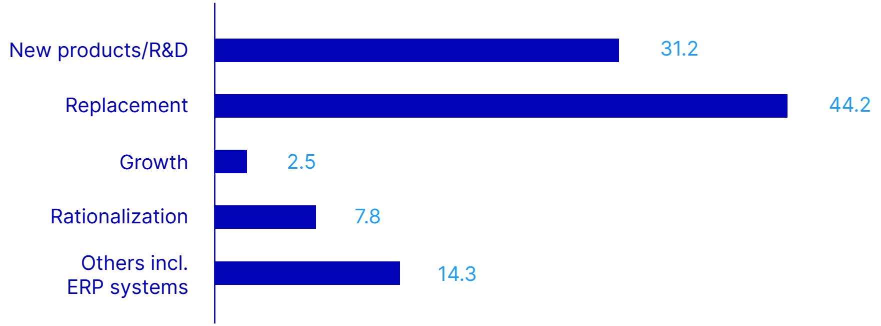
Capital expenditure (payments for property, plant and equipment and intangible assets) increased from EUR 97.6 million in the previous year to EUR 129.9 million in fiscal year 2021. This corresponds to 2.8 percent of revenue. The increase can be attributed to, among other things, investments associated with the expansion of the Polish site in Koszalin involving the construction of a second, climate-neutral factory as well as the introduction of a global SAP System (S/4 Hana).

All divisions with the exception of Liquid & Powder Technologies reported a year-on-year increase in capital expenditure. The strongest increases were attributable to the divisions Food & Healthcare Technologies (from EUR 23.2 million to EUR 37.9 million) and Separation & Flow Technologies (from EUR 23.2 million to EUR 36.5 million). At both divisions, this was largely attributable to higher levels of replacement capital expenditure. Lower increases were recorded at Farm Technologies (from EUR 15.0 million to EUR 17.3 million) and Heating & Refrigeration Technologies (from EUR 5.6 million to EUR 6.8 million). Capital expenditure at Liquid & Powder Technologies amounted to EUR 15.9 million, compared to EUR 16.7 million the previous year.

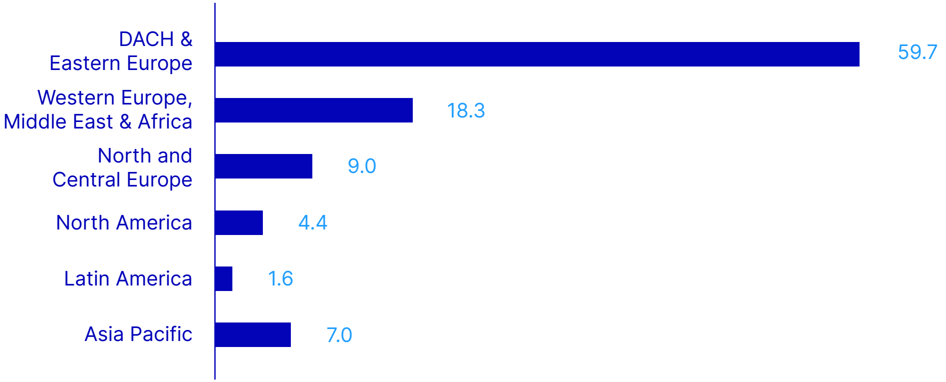
The largest share of capital expenditure was directed towards replacement capital expenditure (around 44 percent). Research and development work as well as new products together accounted for roughly 31 percent. The third-largest spending block of some 14 percent represented investments in ERP systems and miscellaneous items.

In terms of capital expenditure by region, the focus was on the DACH & Eastern Europe region (around 60 percent). This was followed by the Western Europe, Middle East & Africa region with around 18 percent. All other regions were below 10 percent.

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 subject to continuous enhancement. 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 2022, corporate planning covers two further planning years.

In fiscal year 2021, 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 (Global Executive Committee, GEC), which comprises the Executive Board members, the heads of the divisions and sales regions, as well as the head of Human Resources, 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, and 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 financial performance indicators in the management system in 2021

GEA's prime objective is to realize sustainable 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 2021, the key financial performance indicators for GEA were as follows:

- Revenue
- EBITDA before restructuring measures
- Return on capital employed (ROCE)

EBITDA before restructuring measures

GEA uses EBITDA (earnings before interest, taxes, depreciation and amortization as well as reversal of impairment)* as its key performance indicator. EBITDA is adjusted to take account of the effect of restructuring expenditures. 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 requiring funding in excess of EUR 2 million are taken into account. Accordingly, this indicator is termed “EBITDA before restructuring measures”. If, in addition, 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.

* No change in terms of content to previous year

Return on Capital Employed (ROCE)

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

Capital employed includes (all items calculated as averages for the past four quarters) 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. 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 measures” 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 gaining in 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.

Furthermore, the indicators EBITDA before restructuring measures and ROCE are fixed elements of the new remuneration model for Executive Board members.

Other indicators in the management system in 2021

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

We also evaluate leading indicators of revenue, such as order intake.

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

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 importance for achieving the group’s strategic goals. The key economic criterion for evaluating rationalization and expansion investments is the net present value. The payback 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.

Project- and activity-based management

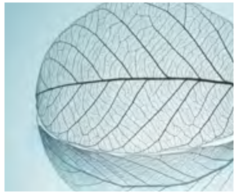
In addition to general management with the aid of the key performance indicators described above, GEA has established individual assessment and approval procedures for customer and investment projects, utilizing specific thresholds for the different hierarchy levels. Customer projects are evaluated primarily on the basis of their expected margins (gross margin on a fully absorbed cost basis) and on their technical, commercial and contractual risk profile, with a particular emphasis on cash flow. Project management is also backed up by extensive project control not only at 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 major projects. In many cases, the findings gleaned from this analysis yield suggestions 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 margin.

Research and Development

- 2.4 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
- 58 new products released
- 69 new patent families filed

GEA's "Mission 26" strategy, which sets the path for the company's sustainable 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 ensures the subsequent implementation of the 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.

In the area of digitalization, GEA strengthened its organization in the reporting period, creating the position of Chief Digital Officer (CDO), thus underscoring its importance within the organization. The digitalization function is responsible for two main tasks: Firstly, it coordinates the wide range of digitalization initiatives at GEA, such as eProcurement, Factory of the Future and Engineering 4.0. These measures sustainably enhance the efficiency and flexibility of GEA's business processes. Secondly, it combines all of GEA's digitalization activities that are directly customer-facing in one network organization under "GEA Digital".

Environmental sustainability

„Engineering for a better world." – part of this commitment involves GEA enabling its customers to act more sustainably and reduce their environmental footprint through the products and services it provides. GEA's contribution to environmental sustainability therefore already begins at the development stage. The optimization of the existing offering and new product development are primarily focused on:

- energy reduction and the related reduction of greenhouse gas emissions,
- reduction of water consumption, for example through the "zero freshwater use" option and
- promotion of the circular economy

To succeed in this transition, GEA has set clear 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

Consumer attitudes toward food have changed in recent years. The environment and animal welfare are increasingly important for more and more consumers, as well as a trend towards healthy, safe and individualized food continues. In developing countries, demand for high-quality protein-rich foods is growing even faster than the population. This is particularly important since conventional meat production has a major environmental impact in terms of water consumption, air pollution, loss of biodiversity and greenhouse gas emissions.

As a systems supplier to the food, beverage and pharmaceutical industries, GEA makes a significant contribution to nutrition. In addition to conventional processes, new resources need to be harnessed to achieve this. GEA is pursuing this concept by developing and making scalable forward-looking technologies to produce high-quality proteins as the basis for foods and innovative product developments in the area of new food. These include new biotechnological approaches based on plants and cells, as well as processing insects as an alternative high-protein food source. As a provider of solutions that address the entire process chain, GEA is very well positioned to take a leading role in the growing new food market in the medium term. GEA already has decades of experience in the field of reactor-based precision fermentation – a technology that enables GEA's customers to manufacture important ingredients for new food production. GEA is one of the leading systems suppliers in this area with expertise in this technology. Furthermore, GEA has been focusing on technologies and processes for the production of food from plant-based proteins, such as dairy alternatives made from legumes, seeds, pulses and soy, for a number of years.

Digital solutions

Digitalization also poses major challenges for food technology, but offers those who use and shape it the chance to strengthen customer loyalty by means of digital services and to enter new sales channels. With its digital products and services, GEA aims to increase the availability of its machines and plants as well as enhance the productivity of its customers. The company is fostering customer loyalty by developing services such as interactive remote communication through GEA Remote Services, remote equipment status monitoring through GEA PerformancePlus and self-optimizing process automation through GEA OptiPartner. The significance of digital sales channels is illustrated by revenues of more than EUR 600 million from e-commerce in the past fiscal year. For the Farm Technology Division, which is benefiting the most from this trend, this means that e-commerce accounts for more than 80 percent of all customer orders.

Moreover, GEA is creating the structural conditions to successfully shape the company's internal digitalization. For example, GEA is building a new network organization – GEA Digital – that combines all direct customer-facing digitalization activities. Close cooperation and collaboration between the digital units of the divisions and a central digital hub ensure a synchronized and accelerated digital product development.

Standardized platforms for all GEA business areas are developed and run within the digital hub, thus creating synergies and new offerings. These digital products and services are developed close to the customer in the divisions and built on the basis of the central technology platforms. Examples include:

- Industrial internet of things (IIoT) platform for standardized, cloud-based product connectivity,
- Data science & advanced analytics to analyze and evaluate equipment and process data and
- Customer engagement with a focus on digital customer interfaces in the areas of marketing, sales and service.

Modularization and configuration

As a machinery and plant 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 make tendering and sales processes, as well as production and order processing, faster and more efficient. As a result, it is possible to handle higher order volumes.

To achieve this, products are broken down into individual standardized modules that can be used repeatedly in different projects. This modularization considerably reduces complexity in the providing of services. At the same time, GEA continues to meet customer requirements 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. For example, in the Business Unit Homogenization, GEA has established a web-based sales channel that embraces the principle of modularization and offers a modern, customer-oriented web platform for product configuration. The smart modularization of components has simplified product structure and reduced the number of different components. As a result, the effort involved in the quotation and order processing process has been reduced by more than half.

New products: Examples

The following examples give an insight into GEA's innovation activities in 2021.

Example from the key development area **environmental sustainability**

GEA RedGenium heat pump with new reciprocating compressor

The **GEA RedGenium heat pump** with a new **reciprocating compressor** makes it possible to supply temperatures of up to +95°C. It replaces conventional fossil fuel-based heating systems by raising available process waste heat or other ambient heat to higher temperature levels. This consumes significantly less electrical energy than through direct electrical heating. Operating costs can also be reduced immediately compared with fossil fuels, particularly in light of rising CO_2 taxes and fuel prices.

Benefits:
Heat pumps are very energy-efficient systems that contribute to reducing carbon emissions. Thus, they help customers to achieve their stated sustainability targets, particularly climate targets. The GEA RedGenium heat pump offers best-in-class efficiency, meaning that it is especially energy-efficient and economical. The refrigerant used is low-charge ammonia, which is climate-neutral and very efficient.

Example from the key development area **new food**

Efficient juicing with GEA vaculiq 100 for higher yields and very good quality

GEA's new and improved vaculiq 100 vacuum spiral filter sets a high bar for juicing for small to medium-sized beverage and food producers. Alongside the production of vegetable and fruit juices, the system is ideally suited to the production of new food products, including the extraction of oils and proteins from insect larvae or the gentle dehydration of edible mushroom mycelium to create a textured meat substitute.
The system includes an integrated, high-performance GEA multiCrush milling system, which crushes the raw materials. A progressive cavity pump conveys the resulting mash into the vacuum cylinder, where it is juiced under vacuum condition in a perforated sieve tube. Finally, a rotating spiral in the stainless steel sieve transports the solids to the discharge opening, preventing the sieve from clogging.

Benefits:
The patented entry-level system with a flow rate of up to one cubic meter per hour is available as a mobile, flexible and compact unit. Compared to presses with comparable flow rates, the juice yield is higher, at up to 80 percent – even with challenging starting products.

Above all, the new GEA vaculiq system produces compelling results with regard to the high quality of the end product. The use of nitrogen in the mill area prevents the entry of oxygen and the associated oxidation. Consequently, there are no undesirable changes in aroma or color. In addition, the rapid processing of the raw product ensures that the enzymes contained in the fruit have virtually no negative impact on the juice. Scientific research from the German Institute of Food Technology prove that higher quantities of vitamins and phenols are transferred from the fruit to the juice compared with other juicing technologies such as presses.

Right: In the process chamber shown, the juice is separated from the mash by means of vacuum.

Example from the key development areas **digital solutions**

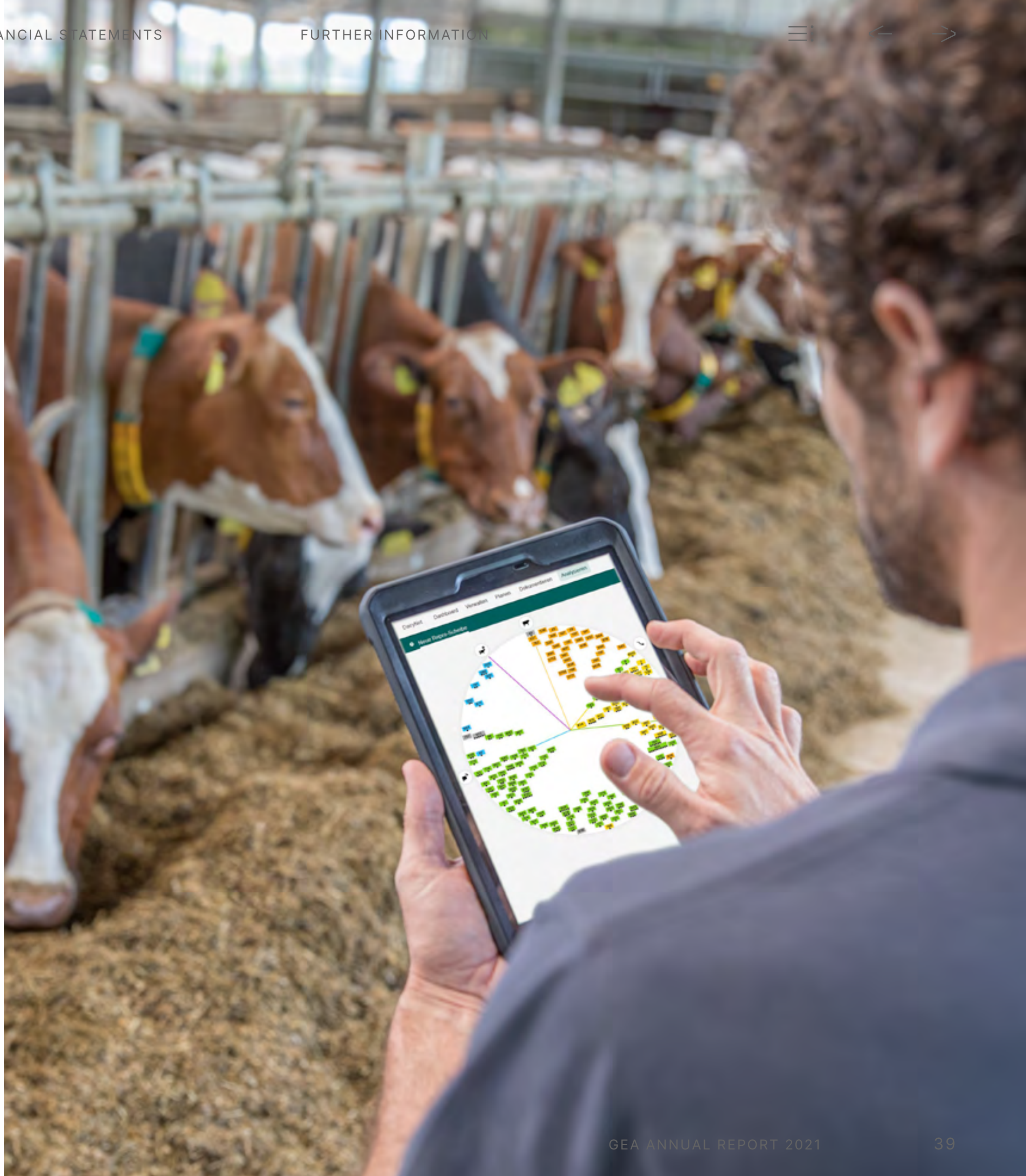
GEA DairyNet® for herd and farm management

The **GEA DairyNet®** software solution provides comprehensive herd and farm management support and thus makes a significant contribution to animal welfare. In a modern cowshed, GEA's milking robots and the proven GEA CowScout technology (neck and foot sensors) deliver a wealth of data for each individual cow, including milk volume, milking time, milk flow, preferred milking stall, cell count in the milk, current location, feed quantity, and feeding, ruminating and moving times and patterns.

The DairyNet software presents key information and appropriate practical recommendations on animal health and operating processes in real time and interactively via PC, tablet or smartphone. It analyzes and prepares the available data to enable farmers to maintain high animal welfare standards on their farms while also maximizing profitability.

Benefits:
The software assists dairy farmers with the day-to-day management, analysis, planning and documentation of operating procedures, thereby improving the efficiency and flexibility of the dairy farm and enhancing animal welfare. Any anomalies, for example in a cow's milk yield, are identified and reported by the system at a very early stage, which enables the farmer to implement appropriate measures in due time and prevent milk loss, thereby limiting the loss of income.

With regard to reproduction management, DairyNet offers informative overviews and functions to monitor individual dates, for example the optimal timing of the "drying off" (the period immediately before calving) of individual cows. The system can also be operated on-site as a local server solution so that it is not reliant on network connections or potentially lower transfer rates in rural areas.



Left: Gelatinized sheet that comes out of the extruder.
Below: Ingredients mixture of the Dough

Final dryed pellet (3D Triangles) leaving the drying step

Example from the key development areas **modularization and configuration**

GEA xTru Twin series twin-screw extruder for the continuous, automated gelatinization of flour and starch

The **GEA xTru Twin series extruder** is a very powerful twin-screw extruder. It offers an extremely wide range of end products, including cereal-based snack pellets, breakfast cereals and dry pet food. A high-speed premixer guarantees a very high flour hydration, a large mixing vessel ensures correct water absorption by the dough, and a vertical screw controls the dosing of the dough into the cooking screw.

Benefits:

The new xTru Twin 140 produces more than three metric tons of snack pellets or ten metric tons of dry pet food per hour, reaching a capacity up to 40 percent higher than that of the previous model, with the same footprint and quality of machine material. The profile of the twin screws was newly developed to increase capacity.

The machine is based on a standard module, which can be supplemented by additional customer-specific modules. The new modular construction makes it possible to reduce development time by up to 20 percent. In addition, the new flexible concept makes it possible to significantly speed up final assembly, with construction time around 15 percent faster.

Further benefits include the simple and efficient retrofitting of existing systems to increase product capacity.

Example outside of the key development areas

GEA kytero® pharma separator – compact evolution in the world of single-use pharma separating technology

The single-use **GEA kytero® pharma separator** separates animal cells or bacteria from fermentation broths – effectively, gently and under aseptic conditions. "Single-use" is a commonplace concept in the pharmaceutical industry. All elements that are in contact with the product, such as the rotating drum, the surrounding housing, tubing and containers are made of recyclable materials and are exchangeable for sterile new parts during batch changes.

Benefits:
By using centrifugal force rather than filter-based harvesting methods, this new GEA solution achieves high-quality and high-yield separation results that are ready for efficient up- or downscaling.

Single-use quickly pays off environmentally and economically for small production volumes in areas such as pharmaceutical development - compared to conventional separators: cross-contamination is reliably avoided; there is no need to clean and sterilize using chemicals, ultrapure steam and ultrapure water, or conduct related time-consuming checks. A fully closed stack system with no mechanical seals means that the process is safer, more robust, more reliable and easier to handle.

Thanks to the revolutionary GEA breezeDrive® technology, GEA kytero® is quiet and maintenance-free. It can be quickly prepared for the next production batch with little time and effort needed for modifications. Supply and other process equipment, such as storage tanks, are not required, significantly reducing the need for additional investment.

Right: Replaceable separator kit

Patents

In fiscal year 2021, GEA filed applications for a total of 69 (previous year: 53) new patent families as a result of its extensive 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

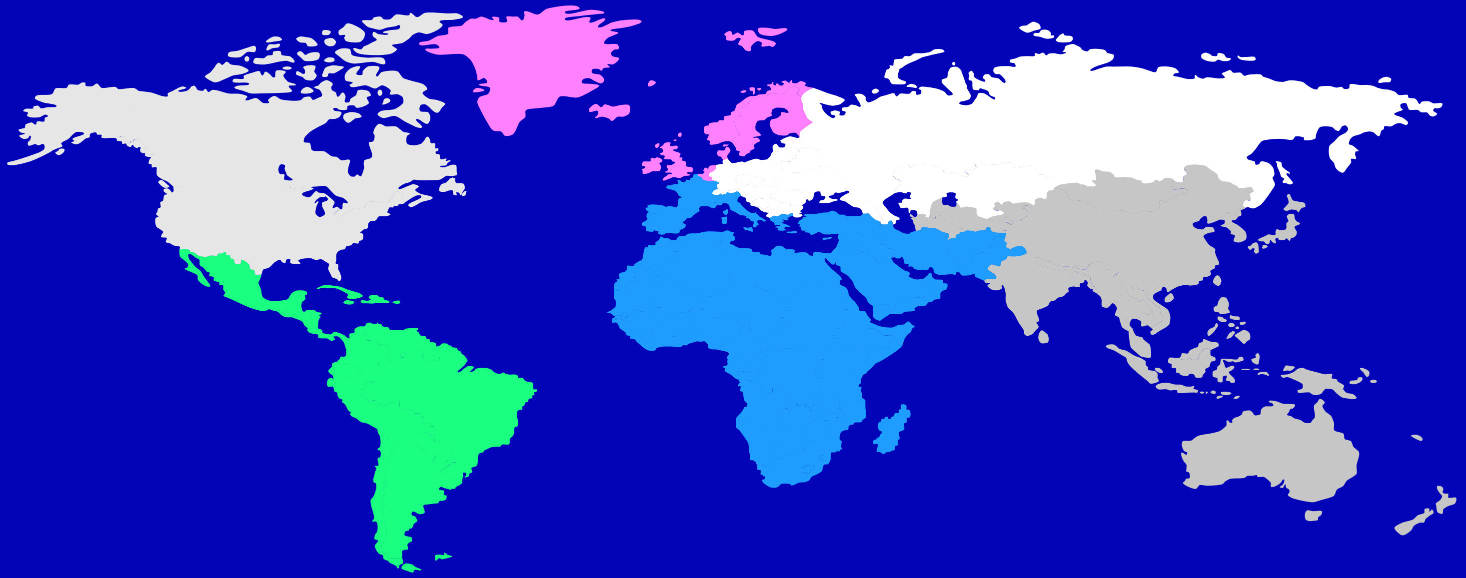
In fiscal year 2021, expenses for proprietary R&D for GEA's own purposes totaled EUR 114.0 million, stable relatively to the previous year (previous year: EUR 115.0 million). This figure includes the depreciation of capitalized development costs in the amount of EUR 18.8 million (previous year: EUR 16.8 million) that are recognized under the cost of sales. Furthermore, in the year under review, third party contract costs for R&D totaled EUR 13.0 million (previous year: EUR 14.0 million), which are recognized under the cost of sales. At 2.4 percent, the ratio of R&D for GEA's own purposes to sales was slightly lower than in the previous year (2.5 percent). The R&D ratio including third party contract costs, at 2.7 percent, was slightly lower than in the previous year as well (2.8 percent).

Capitalized development expenses in the year under review came in at EUR 29.2 million (previous year: EUR 30.2 million). Including depreciation of capitalized development costs, R&D expenses for GEA's own purposes amounted to EUR 124.5 million (previous year: EUR 128.4 million). As a percentage of revenue, this indicator also shows a slight decrease from 2.8 percent in the previous year to 2.6 percent in fiscal year 2021.

Research and development (R&D) for GEA's own purposes (EUR million)	2021	2020	Change in %
Depreciation of capitalized development expenses (Cost of Sales)	18.8	16.8	12.0
Research and development expenses	95.2	98.3	–3.1
R&D expenses for GEA's own purposes	**114.0**	**115.0**	**–0.9**
R&D ratio (as % of revenue)	**2.4**	**2.5**	**–**
Capitalized development expenses	29.2	30.2	–3.1
Depreciation of capitalized development expenses	–18.8	–16.8	12.0
R&D expenditure	**124.5**	**128.4**	**–3.1**
R&D ratio (as % of revenue)	**2.6**	**2.8**	**–**

Research and development (R&D) - total (EUR million)	2021	2020	Change in %
R&D expenses for GEA's own purposes	114.0	115.0	–0.9
R&D expenses on behalf of third parties (Cost of Sales)	13.0	14.0	–6.8
R&D expenses - total	**127.0**	**129.0**	**–1.5**
R&D ratio - total (as % of revenue)	**2.7**	**2.8**	**–**

REPORT ON ECONOMIC POSITION



DACH & Eastern Europe
981 EUR million
6,939

Western Europe, Middle East & Africa
825 EUR million
2,906

North and Central Europe
636 EUR million
3,105

North America
835 EUR million
1,590

Latin America
335 EUR million
564

Asia Pacific
1,091 EUR million
3,039

= Revenue = Employees (FTEs)

GEA in fiscal year 2021

The outlook for fiscal year 2021 was based on the assumption of improving demand in sales markets as a result of the global recovery. A gradual improvement during the year was expected due to the start of vaccination programs against Covid-19. The organic revenue forecast (i.e. adjusted for currency and portfolio effects) was for 0 to 5 percent growth, and the expectations for EBITDA before restructuring expenses (at constant exchange rates) were between EUR 530 million and EUR 580 million. A corridor of between 16.0 and 20.0 percent was forecast for return on capital employed (ROCE), also at constant exchange rates.

In the ad hoc release dated July 29, 2021, GEA raised its outlook for revenue, EBITDA before restructuring expenses and ROCE for fiscal year 2021 as a result of a very good performance in the first half of 2021. Expectations for organic revenue growth have been raised to between 5 and 7 percent. Likewise, the expectation corridors for EBITDA before restructuring expenses were adjusted upward to between EUR 600 million and EUR 630 million and for ROCE to between 23 percent and 26 percent (both at constant exchange rates).

The outlook was confirmed in the quarterly statement for the third quarter.

At 4.3 percent, organic revenue growth for fiscal year 2021 was slightly below the expected corridor of 5 to 7 percent. At EUR 625 million, EBITDA before restructuring expenses (EUR 630 million at constant exchange rates) reached the upper end of the forecast range of EUR 600 to 630 million. With ROCE of 27.8 percent (28.1 percent at constant exchange rates), expectations of 23.0 to 26.0 percent were exceeded.

Further information on GEA's business performance can be found in the "Current Position" section of this chapter.

Forecast fiscal year 2021	Forecast for 2021 (as per Annual Report 2020)	New Forecast (ad-hoc 07/29/2021 or for divisions in the Q2 Financial Report)	2021 reported	2021 at constant exchange rates
Revenue development (organic)	0 to 5 %	5 to 7 %	1.5 %	4.3 %
EBITDA before restructuring expenses	EUR 530 – 580 million	EUR 600 – 630 million	EUR 625 million	EUR 630 million
ROCE	16.0 – 20.0 %	23.0 – 26.0 %	27.8 %	28.1 %

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

Revenue development (organic)*	Forecast for 2021 (as per Annual Report 2020)	New Forecast (ad-hoc 07/29/2021 or for divisions in the Q2 Financial Report)	2021 reported	2021 at constant exchange rates
Separation & Flow Technologies	slightly declining	significantly rising	3.8 %	5.4 %
Liquid & Powder Technologies	slightly rising	significantly rising	-7.2 %	0.6 %
Food & Healthcare Technologies	slightly rising	slightly rising	4.7 %	-1.1 %
Farm Technologies	slightly rising	significantly rising	1.4 %	11.9 %
Heating & Refrigeration Technologies	slightly declining	slightly declining	-11.9 %	-1.2 %
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 2021 (as per Annual Report 2020)	New Forecast (ad-hoc 07/29/2021 or for divisions in the Q2 Financial Report)	2021 reported	2021 at constant exchange rates
Separation & Flow Technologies	slightly rising	significantly rising	18.5 %	20.0 %
Liquid & Powder Technologies	significantly rising	significantly rising	24.8 %	25.0 %
Food & Healthcare Technologies	significantly rising	significantly rising	27.1 %	27.5 %
Farm Technologies	slightly rising	significantly rising	13.8 %	1.0 %
Heating & Refrigeration Technologies	slightly rising	slightly rising	1.2 %	14.8 %
Others	significantly declining	significantly declining	-33.1 %	-33.2 %
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 2021 (as per Annual Report 2020)	New Forecast (ad-hoc 07/29/2021 or for divisions in the Q2 Financial Report)	2021 reported	2021 at constant exchange rates
Separation & Flow Technologies	slightly rising	significantly rising	7.6 % p.	8.0 % p.
Liquid & Powder Technologies	significantly declining	significantly rising	–[2]	–[2]
Food & Healthcare Technologies	significantly rising	significantly rising	8.4 % p.	8.5 % p.
Farm Technologies	slightly rising	significantly rising	6.0 % p.	9.1 % p.
Heating & Refrigeration Technologies	slightly declining	significantly rising	8.9 % p.	6.2 % p.

1) For ROCE, "slight" corresponds to a change of up to +/- 3%, while changes from +/- 3% are described as "significant."
2) ROCE for 2021 is not meaningful due to the negative capital employed.

Macroeconomic environment

As a global technology company, GEA considers growth in gross domestic product (GDP) and hence the International Monetary Fund's (IMF) assessments in this regard to be key benchmarks for its own development.

In fiscal year 2021, the global economy experienced a strong economic recovery after a noticeable recession in the previous year due to the Covid-19 pandemic. The IMF expects significant growth in economic output of around 5.9 percent for 2021 (World Economic Outlook Update January 2022). According to the latest estimates, the industrialized countries will record growth of 5.0 percent, despite problems with global supply chains. The IMF expects an increase of 5.6 percent for the USA and 2.7 percent for Germany. The IMF's forecast for the euro area for 2021 is 5.2 percent – especially driven by stronger growth in Italy and France. The IMF expects growth of 8.1 percent for China. Developments in emerging markets (excluding China) and developing countries were also positive in 2021: large economies such as India (+9.0 percent), Mexico (+5.3 percent) and Brazil (+4.7 percent) will all have recorded significant upturns, according to the IMF.

Figures published by the German Mechanical Engineering Industry Association (VDMA) are a reflection of the current situation in the engineering sector (VDMA). Order intake in the German mechanical and plant engineering sector recovered significantly in 2021. Building on the weak baseline of 2020, a real (adjusted for price increases) increase of 32 percent year-on-year was recorded. This growth was driven in particular by significantly stronger foreign orders (+39 percent), although domestic orders also rose strongly (+18 percent). By contrast, production grew at a weaker rate of 7 percent in real terms over the same period due to the shortage of raw materials and intermediate products such as semiconductors. According to VDMA, many machine manufacturers were therefore unable to process their orders at the usual pace.

Business development

The business performance is explained below for the continuing operations and thus GEA's five divisions. All amounts have been rounded to the nearest whole number using standard rounding rules. In individual cases, rounding differences may occur when adding individual values to the total value.

Disposals

As part of its continued focus on its strategic core markets of food, beverages and pharmaceuticals, GEA successfully completed the sale of compressor manufacturer Bock, which had been part of the Heating & Refrigeration Technologies division, to NORD Holding on February 26, 2021. In addition, the refrigeration contracting and service operations in Spain and Italy, also assigned to the Heating & Refrigeration Technologies division, were sold to the French family-owned business Clauger. The sale was closed on October 29, 2021.

Furthermore, GEA entered into an agreement with the French company Syclef for the sale of its refrigeration contracting and service operations (Heating & Refrigeration Technologies division) in France. The closing of the transaction took place on February 28, 2022.

Restructuring

In fiscal year 2021, restructuring expenses of EUR 55.5 million were incurred in EBITDA (previous year: EUR 54.2 million). The restructuring expenses mainly relate to costs in connection with portfolio measures, in particular the sale of compressor manufacturer Bock and the sale of refrigeration contracting and service operations in Spain, Italy and France as well as the planned closure of GEA Diessel.
In the reporting year, restructuring expenses of EUR 40.6 million were cash items (previous year: EUR 38.2 million).

Results of operations, financial position and net assets

Results of operations

Order intake

In fiscal year 2021, the group's order intake increased significantly by 11.0 percent to EUR 5,222 million (previous year: EUR 4,703 million). Organic growth amounted to 14.0 percent. Double-digit growth rates in all divisions contributed to this development, with the exception of Heating & Refrigeration Technologies. Order intake grew in orders worth up to EUR 5 million and for large orders (exceeding EUR 15 million), while orders worth EUR 5 to 15 million remained stable.

Order intake (EUR million)	2021	2020	Change in %	Organic growth in %
Separation & Flow Technologies	1,359.1	1,211.6	12.2	14.9
Liquid & Powder Technologies	1,747.7	1,665.3	4.9	13.5
Food & Healthcare Technologies	1,032.8	854.2	20.9	14.5
Farm Technologies	702.1	677.0	3.7	14.8
Heating & Refrigeration Technologies*	617.0	625.3	–1.3	8.8
Consolidation	–236.2	–330.3	28.5	–
GEA	**5,222.5**	**4,703.0**	**11.0**	**14.0**

*) On October 1st, the Refrigeration Technologies division was renamed to Heating & Refrigeration Technologies.

Order intake development in %	2021
Change compared to prior year	**11.0**
FX effects	–1.1
Acquisitions/divestments	–1.9
Structure	–
Organic	**14.0**

Almost all customer industries recorded increases in order intake in the reporting year. In particular the customer industries food, pharmaceuticals, and chemicals customer industries recorded significant double-digit growth rates. Order intake declined only in dairy processing.

With respect to the regional distribution, almost all regions also recorded significant growth, particularly Northern and Central Europe, Asia Pacific and North and Latin America. The DACH & Eastern Europe region remained stable compared to the previous year.

GEA secured nine large orders (exceeding EUR 15 million) in the reporting year at a combined value of over EUR 293 million. This mainly comprised orders in the food, beverage and pharmaceutical sectors, including an order in the growth market new food market worth well into the high double-digit million-euro range. The regional focus of these projects lay on the North American and Latin American regions, as well as Asia Pacific and Europe. In the previous year, GEA posted eleven large orders totaling more than EUR 273 million.

Order backlog

At EUR 2,785 million, the order backlog for the group was significantly above the prior year of EUR 2,298 million. Based on order intake for the fiscal year ended December 31, 2021, the group's order backlog had a theoretical range of 6.4 months (previous year 5.9 months). Depending on the type of business, the theoretical range was between 3.7 months for the Farm Technologies division and 9.3 months for the Liquid & Powder Technologies division.

Order backlog (EUR million)	12/31/2021	12/31/2020	Change in %	Change (absolute)
Separation & Flow Technologies	489.4	373.7	30.9	115.7
Liquid & Powder Technologies	1,353.0	1,177.4	14.9	175.6
Food & Healthcare Technologies	605.3	481.5	25.7	123.8
Farm Technologies	214.8	150.7	42.5	64.0
Heating & Refrigeration Technologies*	206.7	235.8	–12.3	–29.1
Consolidation	–83.7	–120.7	30.7	37.0
GEA	**2,785.4**	**2,298.5**	**21.2**	**487.0**

*) On October 1st, the Refrigeration Technologies division was renamed to Heating & Refrigeration Technologies.

Revenue

In the reporting year, revenue of EUR 4,703 million was 1.5 percent higher than in the previous year. Organic growth totaled 4.3 percent. Growth in the Separation & Flow Technologies and Farm Technologies divisions more than compensated for the subpar development in the other divisions. The share of service revenue continued to rise and amounted to 34.2 percent in the reporting year, compared to 33.6 percent in the previous year.

Revenue developed positively in the customer industries dairy processing, dairy farming, food, pharma and chemical. By contrast, revenue in the customer industry beverage declined.

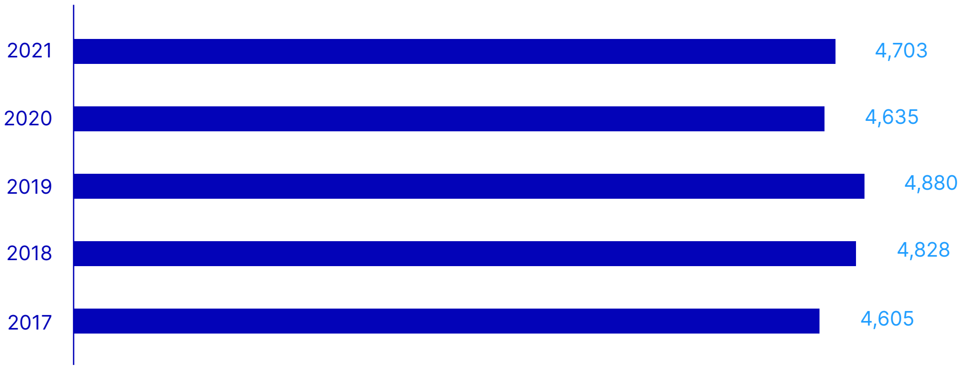
The book-to-bill ratio, i.e. the ratio of order intake to revenue, was 1.11 in 2021 – significantly higher than the prior-year figure of 1.01.

Revenue (EUR million)	2021	2020	Change in %	Organic growth in %
Separation & Flow Technologies	1,237.2	1,192.1	3.8	5.4
Liquid & Powder Technologies	1,546.1	1,665.7	–7.2	0.6
Food & Healthcare Technologies	937.1	895.1	4.7	–1.1
Farm Technologies	633.9	624.8	1.4	11.9
Heating & Refrigeration Technologies*	584.0	662.8	–11.9	–1.2
Consolidation	–235.3	–405.4	42.0	–
GEA	**4,702.9**	**4,635.1**	**1.5**	**4.3**

*) On October 1st, the Refrigeration Technologies division was renamed to Heating & Refrigeration Technologies.

Revenue development in %	2021
Change compared to prior year	**1.5**
FX effects	–0.9
Acquisitions/divestments	–1.9
Structure	–
Organic	**4.3**

Revenue for the last 5 years
(EUR million)



External revenue (EUR million)	2021	2020	Change in %
Asia Pacific	1,091.0	1,058.2	3.1
DACH & Eastern Europe	980.9	1,022.1	–4.0
thereof Germany	406.9	424.5	–4.2
Latin America	334.8	304.6	9.9
North America	834.6	864.7	–3.5
North- and Central Europe	636.3	604.3	5.3
Western Europe, Middle East & Africa	825.1	781.1	5.6
GEA	**4,702.9**	**4,635.1**	**1.5**

The revenue performance varied between regions. Growth was recorded in Western Europe, Middle East & Africa, Northern and Central Europe, Asia Pacific and Latin America. In contrast, a decline was recorded in the DACH & Eastern Europe and North America regions.

Results of operations

Development of selected key figures (EUR million)	2021	2020	Change in %
Revenue	4,702.9	4,635.1	1.5
Gross profit	1,555.5	1,416.1	9.8
Gross margin (in %)	33.1	30.6	252 bps
EBITDA before restructuring expenses	624.8	532.5	17.3
as % of revenue	13.3	11.5	180 bps
Restructuring expenses (EBITDA)	–55.5	–54.2	–
EBITDA	569.3	478.3	19.0
Depreciation, impairment losses and reversals of impairment losses on property, plant and equipment as well as amortization of impairment losses and reversals of impairment losses on intangible assets and goodwill as well as other impairment losses and reversals of impairment losses	–189.6	–257.2	–
EBIT	379.7	221.2	71.7
Restructuring expenses (EBIT)	64.0	110.2	–
EBIT before restructuring expenses	443.7	331.4	33.9
Profit for the period	305.2	96.8	> 100
Earnings per share (EUR)	1.70	0.54	> 100
Earnings per share before restructuring expenses (EUR)	1.99	1.03	93.7

The following table shows EBITDA before restructuring measures by division:

EBITDA before restructuring expenses/EBITDA margin before restructuring expenses (EUR million)	2021	2020	Change in %
Separation & Flow Technologies	302.5	255.3	18.5
Liquid & Powder Technologies	150.0	120.2	24.8
Food & Healthcare Technologies	100.4	79.0	27.1
Farm Technologies	76.1	66.9	13.8
Heating & Refrigeration Technologies*	59.5	58.8	1.2
Others	–63.0	–47.3	–33.1
Consolidation	–0.8	–0.4	< -100
GEA	**624.8**	**532.5**	**17.3**
as % of revenue	**13.3**	**11.5**	**180 bps**

*) On October 1st, the Refrigeration Technologies division was renamed to Heating & Refrigeration Technologies.

In fiscal year 2021, revenue rose by 1.5 percent to EUR 4,703 million. Gross profit rose significantly, primarily due to higher margins in both new machinery and service business, as well as the volume-related improvement in capacity utilization. Accordingly, the gross margin increased by 2.5 percentage points from 30.6 percent to 33.1 percent compared to the previous year.

EBITDA before restructuring expenses came in at EUR 624.8 million, 17.3 percent higher than the prior-year figure of EUR 532.5 million. EBITDA before restructuring expenses (at constant exchange rates) amounted to EUR 629.6 million in the reporting year. This was not only due to an improvement in gross profit, but also to the already introduced efficiency measures. As a result, the corresponding margin improved significantly by 1.8 percentage points to 13.3 percent. All divisions saw a year-on-year improvement in their EBITDA and EBITDA margin before restructuring expenses – in some cases, by several percentage points.

Restructuring expenses (EBITDA) of EUR 55.5 million in the reporting year (previous year: EUR 54.2 million) included expenses relating to the portfolio measures, in particular the sale of compressor manufacturer Bock and the sale of refrigeration contracting and service operations in Spain, Italy and France as well as the planned closure of GEA Diessel. At EUR 189.6 million, depreciation and amortization was down on the prior-year figure of EUR 257.2 million, which was impacted, among other things, by impairment losses on intangible assets as well as impairment losses in connection with the disposal of GEA Farm Technologies Japy SAS, Royal de Boer Stalinrichtingen B.V.+ and Bock. As a result, EBIT before restructuring expenses continued the positive operating trend, rising by 33.9 percent to EUR 443.7 million.

Profit after tax from continuing operations increased by EUR 191.5 million to EUR 299.5 million, with a tax rate of 16.3 percent. Profit after tax from discontinued operations amounted to EUR 5.6 million and includes additions to provisions in connection with obligations arising from GEA's former mining activities. This was offset by a repayment for cash and cash equivalents previously provided by GEA, as well as income from a cost reimbursement and derecognition of a financial liability amounting to EUR 17.0 million resulting from an agreement with the purchaser of the sold GEA Heat Exchangers segment (discontinued operation).

In fiscal year 2021, consolidated profits amounted to EUR 305.2 million, significantly higher than the prior-year figure of EUR 96.8 million.

As part of the EUR 300 million share buyback program launched on August 16, 2021, a total of 2,297,033 outstanding shares were repurchased and are now held as treasury shares. Around EUR 93.8 million was spent on share buybacks in fiscal year 2021.

As a result of the improved consolidated profits and the lower average number of shares compared with the previous year (179,975,846 shares vs. 180,528,462 shares), earnings per share increased from EUR 0.54 to EUR 1.70. Earnings per share before restructuring expenses also increased significantly from EUR 1.03 to EUR 1.99.

Financial position

Given the market volatility and other factors, management of liquidity 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 as follows:

GEA cash credit lines incl. discontinued operations (EUR million)	Maturity	12/31/2021 approved	12/31/2021 utilized
Borrower's note loan (2023)	February 2023	128	128
Borrower's note loan (2025)	February 2025	122	122
Bilateral credit lines	until further notice	88	10
Syndicated credit line („Club Deal")	August 2026	650	–
Total		**988**	**260**

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, which aims to reduce financing costs to the extent possible, optimize interest rates for financial investments, minimize counterparty credit risk, leverage economies of scale, hedge interest rate and exchange rate risk exposures as effectively as possible, and ensure compliance with loan covenants. GEA's financing strategy is designed to not only meet its payment obligations at all times, 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.

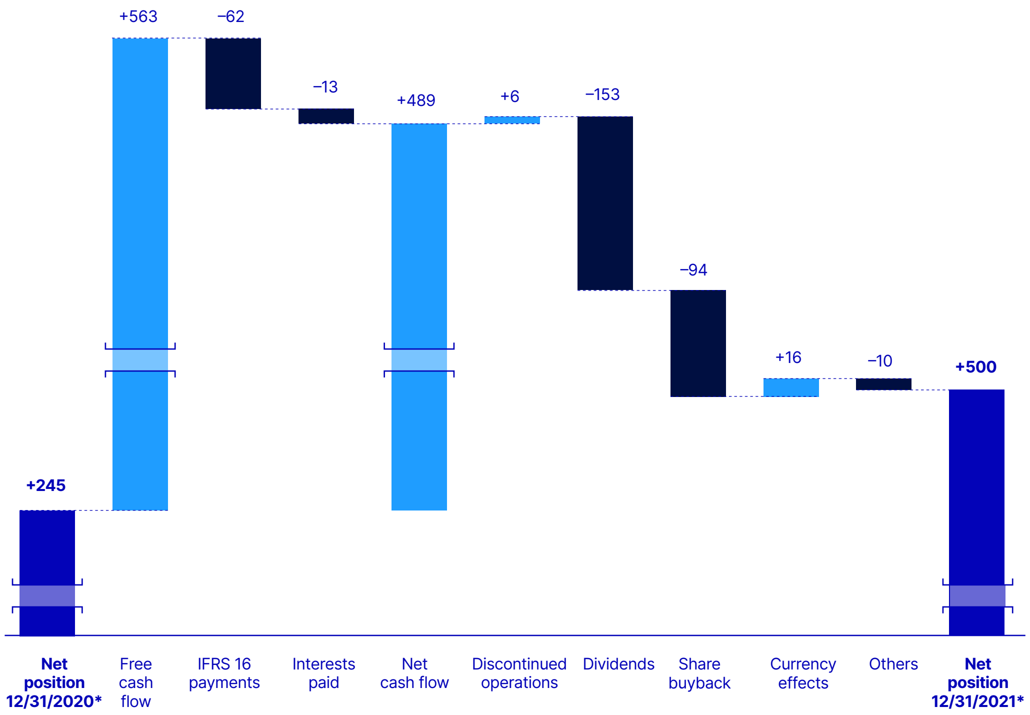
Cash flow from operating activities is the most important source of liquidity. Intragroup cash pooling aims to limit external cash investments and borrowings to the lowest level possible. To achieve this, GEA has established cash pooling groups in 17 countries that automatically balance the accounts of the participating group companies every day by crediting or debiting a target account at GEA Group Aktiengesellschaft. Any additional liquidity needs are generally serviced by group management, which also invests surplus liquidity. In a number of cases, however, liquidity peaks in individual countries cannot be reduced on a cross-border basis due to legal or tax-related 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 165.8 million as of December 31, 2021 (prior year EUR 156.9 million).

Net liquidity including discontinued operations and taking into account lease liabilities amounted to EUR 499.8 million as of December 31, 2021, compared to EUR 245.3 million at the end of the previous year. This marked increase in liquidity was largely attributable to the significantly improved earnings and the sharp reduction in net working capital. The largest cash outflows are attributable to the dividends paid (EUR 153.4 million), repayment of the European Investment Bank loan (EUR 150.0 million), investments in property, plant and equipment and intangible assets (EUR 129.9 million) and the acquisition of treasury shares under the share buyback program (EUR 93.8 million).

Overview of net liquidity incl. discontinued operations (EUR million)	12/31/2021	12/31/2020
Cash and cash equivalents	928,3	821,9
Liabilities to banks	262,7	419,6
Leasing liabilities	165,8	156,9
Net liquidity (+)/Net debt (-)	**499,8**	**245,3**

Cash and cash equivalents amounted to EUR 928.3 million as of December 31, 2021, which was EUR 106.3 million higher than at the end of the previous year. This includes commercial paper in the amount of EUR 90.0 million. Liabilities to banks amounted to EUR 262.7 million at the end of the year, compared with EUR 419.6 million at the end of the previous year. The decrease is largely due to the repayment of the loan from the European Investment Bank (EIB) in the amount of EUR 150.0 million. At EUR 165.8 million, lease liabilities were slightly higher than the prior-year level (previous year: EUR 156.9 million).

As of the reporting date, GEA had bank guarantee lines, which are mainly for contract performance, advance payments and warranties amounting to EUR 1,096 million (December 31, 2020: EUR 1,131 million) of which EUR 411.3 million (December 31, 2020: EUR 421.1 million) was utilized.

GEA uses factoring programs as off-balance sheet financing instruments. As of December 31, 2021, their volume utilized amounted to EUR 47.7 million, compared to EUR 47.1 million as of December 31, 2020.

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.

(EUR million)		12/31/2021	12/31/2020
Carrying amount before impairment losses		**736,6**	**806,2**
Impairment losses		67,6	80,7
Carrying amount		**669,0**	**725,5**
of which not overdue at the reporting date		585,6	579,1
of which past due at the reporting date		83,4	146,4
	less than 30 days	49,7	80,0
	between 31 and 60 days	14,8	26,6
	between 61 and 90 days	5,6	13,0
	between 91 and 180 days	8,1	15,5
	between 181 and 360 days	3,8	7,5
	more than 360 days	1,4	3,8

GEA Group Aktiengesellschaft paid a dividend of EUR 0.85 per share in fiscal year 2021, unchanged from the previous year. The volume of the dividend payment (EUR 153.4 million) also remained unchanged.

Consolidated Cash Flow Statement

The consolidated cash flow statement can be summarized as follows:

Overview of cash flow statement (EUR million)	2021	2020	Change absolute
Cash flow from operating activities	675.9	717.8	–42.0
Cash flow from investing activities	–112.5	–92.2	–20.3
Free cash flow	**563.4**	**625.6**	**–62.2**
Cash flow from financing activities	–479.5	–138.6	–340.9
Net cash flow other discontinued operations	6.0	–1.7	7.7
Change in unrestricted cash and cash equivalents	106.3	467.7	–361.3

Cash flow from operating activities attributable to continued operations amounted to EUR 675.9 million in the reporting year, well below the prior-year figure of EUR 717.8 million. This decline, despite the significantly improved earnings, resulted in particular from the further reduction in net working capital, albeit below the level of the previous year.

Cash flow from investing activities of continuing operations of EUR -112.5 million was below the prior-year figure of EUR -92.2 million, primarily due to higher payments for investments in property, plant and equipment and intangible assets of EUR 129.9 million (previous year EUR 97.6 million). Adverse effects resulted from increased proceeds of EUR 13.4 million from the disposal of non-current assets in the reporting year (previous year EUR 3.8 million).

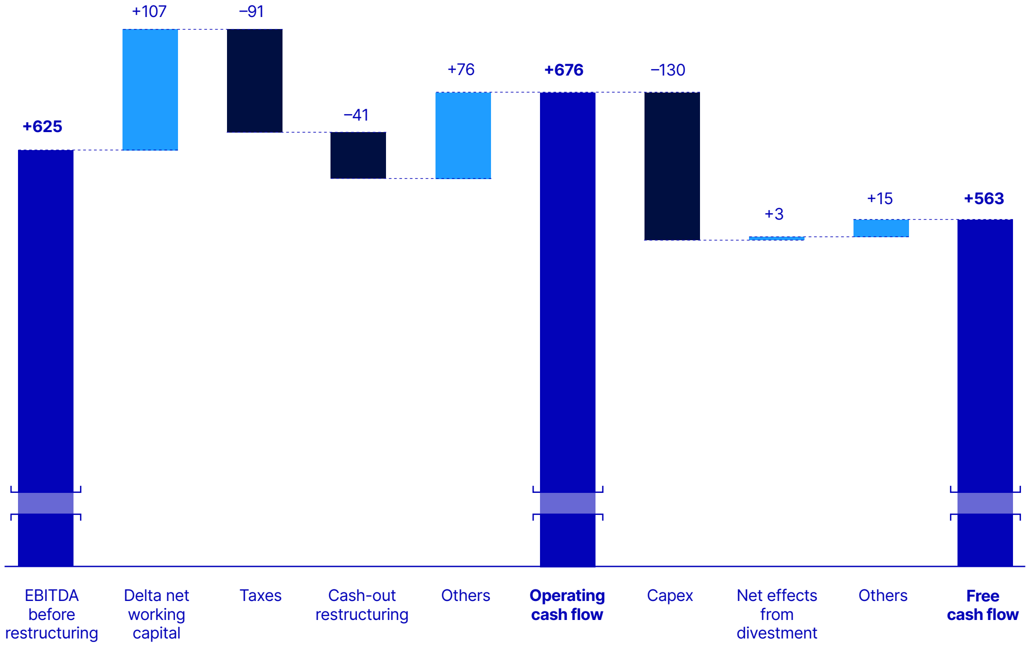
Accordingly, free cash flow amounted to EUR 563.4 million, compared with EUR 625.6 million in the prior-year period.

In addition to the dividend payment of EUR 153.4 million, the cash flow from financing activities of continuing operations mainly reflected the repayment of the loan from the European Investment Bank in the amount of EUR 150.0 million and payments for the acquisition of treasury shares in the amount of EUR 93.8 million. This item also includes payments for lease liabilities amounting to EUR 61.9 million. In the previous year, the cash flow from financing activities attributable to continuing operations also included the dividend payment in the same amount as well as payments for lease liabilities (EUR 62.4 million) and the drawdown of the loan from the European Investment Bank totaling EUR 100.0 million.

Cash flow from discontinued operations amounted to EUR 6.0 million in the reporting period (previous year: EUR -1.7 million).

Free cash flow

(EUR million)



Net assets

Condensed balance sheet (EUR million)	12/31/2021	as % of total assets	12/31/2020	as % of total assets	Change in %
Assets					
Non-current assets	2,961.3	50.4	2,899.7	51.0	2.1
thereof goodwill	1,481.2	25.2	1,502.1	26.4	–1.4
thereof deferred taxes	379.9	6.5	333.8	5.9	13.8
Current assets	2,913.1	49.6	2,787.2	49.0	4.5
thereof cash and cash equivalents	928.3	15.8	821.9	14.5	13.0
thereof assets held for sale	49.8	0.8	44.5	0.8	12.1
Total assets	**5,874.4**	**100.0**	**5,686.9**	**100.0**	**3.3**
Equity and liabilities					
Equity	2,076.2	35.3	1,921.4	33.8	8.1
Non-current liabilities	1,456.4	24.8	1,639.7	28.8	–11.2
thereof deferred taxes	101.9	1.7	98.6	1.7	3.4
Current liabilities	2,341.8	39.9	2,125.8	37.4	10.2
thereof liabilities held for sale	33.8	0.6	27.4	0.5	23.3
Total equity and liabilities	**5,874.4**	**100.0**	**5,686.9**	**100.0**	**3.3**

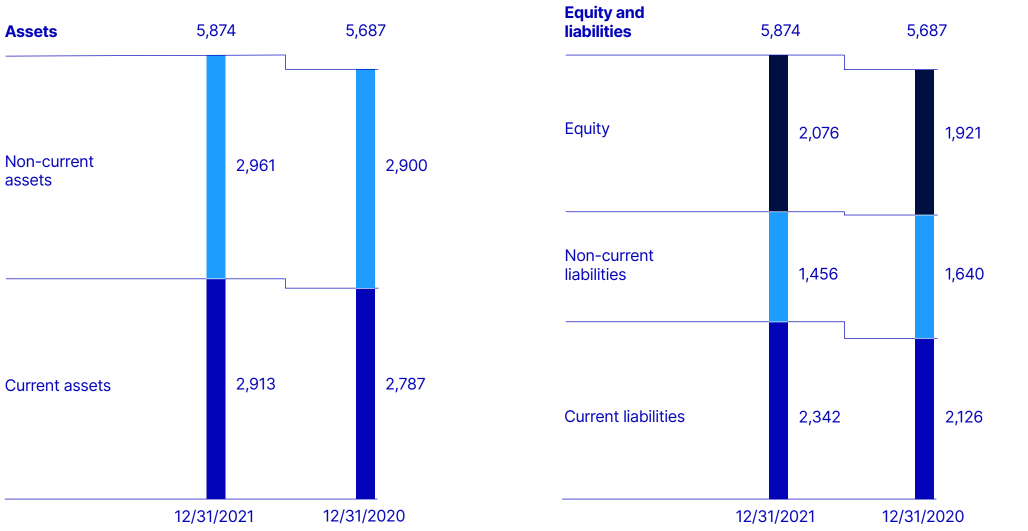
As of December 31, total assets amounted to EUR 5,874 million, up 3.3 percent on the prior-year reporting date. This was largely attributable to the increase in cash and cash equivalents, inventories and deferred taxes. This was partly offset by a decline in trade receivables and lower goodwill, largely due to the sale of the refrigeration contracting and service business.

Equity increased by EUR 154.8 million to EUR 2,076 million. Consolidated net profit (EUR 305.2 million) and other consolidated net profit (EUR 87.3 million) had positive effects on this item. Dividend payments (EUR 153.4 million) and the acquisition of treasury shares (EUR 93.8 million) were the main mitigating factors. The equity ratio rose accordingly to 35.3 percent as of December 31, 2021, compared to 33.8 percent in the previous year.

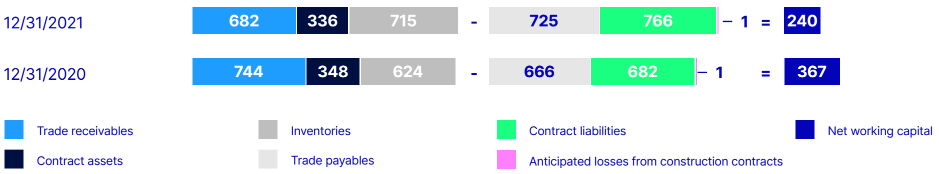
Within non-current liabilities, the liabilities to banks decreased largely due to the repayment of the loan from the European Investment Bank. For current liabilities, the increase was slightly higher, largely due to an increase in current contract liabilities and higher trade payables.

Comparison of net assets (2021 vs. 2020)

(EUR million)



Change in net working capital (continued operations)
(EUR million)



Return on Capital Employed (ROCE)

Return on capital employed (ROCE)	12/31/2021	12/31/2020
EBIT before restructuring expenses of the last 12 months (EUR million)	443.7	331.4
Capital employed (EUR million)*	1,593.6	1,942.9
Return on capital employed (in %)	**27.8**	**17.1**
Return on capital employed (in %) at constant currencies	28.1	–

*) 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.

Calculation capital employed* (EUR million)	12/31/2021	12/31/2020
Total assets	**5,730.1**	**5,668.2**
minus current liabilities	2,152.2	2,032.9
minus goodwill mg/GEA	788.8	798.8
minus deferred tax assets	318.9	335.6
minus cash and cash equivalents	865.6	573.6
minus ohter adjustments	11.0	–15.6
Capital employed	**1,593.6**	**1,942.9**

*) average of the last 4 quarters.

As of the reporting date, capital employed (calculated as the average of the last four quarters) decreased significantly from EUR 1,943 million to EUR 1,594 million. The sharp decline was largely attributable to lower net working capital: The increase in inventories compared with the previous year was accompanied by an improvement in net contract assets and trade payables.

Accordingly, return on capital employed (ROCE) improved significantly from 17.1 percent to 27.8 percent, also due to an increase in EBIT before restructuring expenses. All divisions were able to increase ROCE in the reporting year compared to the previous year's figure, in some cases significantly.

GEA's divisions in the fiscal year

Separation & Flow Technologies

Separation & Flow Technologies (EUR million)	2021	2020	Change in %
Order intake	1,359.1	1,211.6	12.2
Revenue	1,237.2	1,192.1	3.8
Share service revenue in %	44.6	42.4	214 bps
EBITDA before restructuring expenses	302.5	255.3	18.5
as % of revenue	24.5	21.4	303 bps
EBITDA	302.4	241.1	25.4
EBIT before restructuring expenses	259.1	210.9	22.9
EBIT	258.9	193.6	33.7
ROCE in % (3rd Party)*	31.1	23.5	759 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 since the beginning of the financial year 2021. The comparative figure for the prior-year period Q4/2020 has been adjusted accordingly to reflect the new logic.

Revenue development in %	2021
Change compared to prior year	**3.8**
FX effects	–1.4
Acquisitions/divestments	–
Structure	–0.1
Organic	**5.4**

Order intake increased significantly by 12.2 percent to EUR 1,359 million in the reporting year, which corresponds to organic growth of 14.9 percent. This development was largely attributable to the food, pharmaceutical, beverage and dairy processing customer industries. With a book-to-bill ratio of 1.10 (previous year 1.02), all three business units recorded a significant increase in demand.

Revenue increased to EUR 1,237 million, an increase of 3.8 percent compared to the previous year. Organic growth was 5.4 percent. New machinery sales were partially impacted by the global supply chain bottlenecks. In absolute terms and as a proportion of total revenue, service revenue increased further to 44.6 percent, compared to 42.4 percent in the previous year. Revenue was up on the previous year in almost all regions, with only the Northern and Central Europe region showing a downward trend.

EBITDA before restructuring expenses increased significantly by 18.5 percent to EUR 302.5 million. In addition to improved margin quality, the product mix, plant capacity utilization in the new machinery business and the increase in the service share also contributed to this rise in EBITDA. The corresponding margin also increased significantly to 24.5 percent, compared with 21.4 percent in the previous year.

ROCE increased significantly year-on-year from 23.5 percent to 31.1 percent.

Liquid & Powder Technologies

Liquid & Powder Technologies (EUR million)	2021	2020	Change in %
Order intake	1,747.7	1,665.3	4.9
Revenue	1,546.1	1,665.7	–7.2
Share service revenue in %	21.1	22.6	-151 bps
EBITDA before restructuring expenses	150.0	120.2	24.8
as % of revenue	9.7	7.2	249 bps
EBITDA	147.4	124.1	18.8
EBIT before restructuring expenses	114.0	80.4	41.7
EBIT	111.4	77.4	44.0
ROCE in % (3rd Party)*	–	95.6	–

*) 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 since the beginning of the financial year 2021. The comparative figure for the prior-year period Q4/2020 has been adjusted accordingly to reflect the new logic. Due to negative capital employed, ROCE is not meaningful for the year 2021.

Revenue development in %	2021
Change compared to prior year	**–7.2**
FX effects	–0.8
Acquisitions/divestments	–
Structure	–7.0
Organic	**0.6**

Order intake increased by 4.9 percent to EUR 1,748 million in 2021, which corresponds to organic growth of 13.5 percent. This growth was largely attributable to the dynamic development of the (new) food business and a significant upturn in the beverage business. Dairy processing also performed very well at the end of the year. In the reporting year, eight large orders (exceeding EUR 15 million) totaling EUR 260 million were secured from customers (previous year: 10 large orders with a combined value of approximately EUR 255 million). Small and medium-sized orders also developed positively. Book-to-bill ratio of 1.13 significantly above the prior-year level of 0.99.

Revenue decreased by 7.2 percent to EUR 1,546 million compared to the previous year, largely due to structural effects. Organic growth, however, was up slightly by 0.6 percent as a result of the solid order backlog. Revenue development was weaker in comparison to the strong order intake partly because new orders were not booked until the middle of the year but also because the Covid-19 pandemic and supply chain bottlenecks made it difficult for construction sites to operate smoothly. Almost all regions showed positive revenue development, with only the regions of Northern and Central Europe and North America, the latter in particular for structural reasons, below the previous year's level. The share of service revenue decreased from 22.6 percent in the previous year to 21.1 percent, largely due to structural effects.

EBITDA before restructuring expenses increased significantly by 24.8 percent to EUR 150.0 million, despite the lower revenue. The development was driven by the improvement in operating margins as part of excellence initiatives in the engineering process, the order processing (from purchasing to assembly at the construction site) and project management. A favorable order mix and improvements in service quality also contributed to this development. As a result, the corresponding margin improved significantly by 2.5 percentage points to 9.7 percent.

ROCE for the reporting year is not meaningful due to the negative capital employed.

Food & Healthcare Technologies

Food & Healthcare Technologies (EUR million)	2021	2020	Change in %
Order intake	1,032.8	854.2	20.9
Revenue	937.1	895.1	4.7
Share service revenue in %	28.8	26.7	214 bps
EBITDA before restructuring expenses	100.4	79.0	27.1
as % of revenue	10.7	8.8	189 bps
EBITDA	88.1	74.3	18.6
EBIT before restructuring expenses	55.8	27.6	> 100
EBIT	42.5	12.3	> 100
ROCE in % (3rd Party)*	14.7	6.3	842 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 since the beginning of the financial year 2021. The comparative figure for the prior-year period Q4/2020 has been adjusted accordingly to reflect the new logic.

Revenue development in %	2021
Change compared to prior year	**4.7**
FX effects	–0.0
Acquisitions/divestments	–
Structure	5.8
Organic	**–1.1**

Order intake increased significantly by 20.9 percent to EUR 1,033 million in the reporting year, which corresponds to organic growth of 14.5 percent. Both the Food and Pharma & Healthcare businesses recorded double-digit growth, which had already started in the second quarter. In 2021, one large contract (exceeding EUR 15 million) with an order value of EUR 33 million was secured (previous year: one large contract of EUR 18 million). As a result, the book-to-bill ratio rose significantly to 1.10 (previous year 0.95).

Revenue increased by 4.7 percent to EUR 937.1 million in the reporting year. Organic growth, however, was down slightly by 1.1 percent. A lower order backlog as a result of the pandemic at the beginning of the year and bottlenecks in the supply chains prevented better revenue development. Performance varied between regions. Revenue growth, especially in the regions of Northern and Central Europe, North America and Western Europe, Middle East and Africa, more than compensated for the declines in Asia Pacific and DACH & Eastern Europe. Service revenue was up, significantly increasing its share of total revenue from 26.7 percent in the previous year to 28.8 percent in the reporting year.

In the reporting year, EBITDA before restructuring expenses rose significantly by 27.1 percent to EUR 100.4 million, primarily due to improved margins and the efficiency measures already introduced. As a result, the corresponding margin improved significantly by 1.9 percentage points to 10.7 percent.

ROCE also increased significantly from 6.3 percent to 14.7 percent in the year under review.

Farm Technologies

Farm Technologies (EUR million)	2021	2020	Change in %
Order intake	702.1	677.0	3.7
Revenue	633.9	624.8	1.4
Share service revenue in %	43.9	45.7	-179 bps
EBITDA before restructuring expenses	76.1	66.9	13.8
as % of revenue	12.0	10.7	130 bps
EBITDA	73.3	61.7	18.7
EBIT before restructuring expenses	48.6	39.6	22.7
EBIT	44.9	12.7	> 100
ROCE in % (3rd Party)*	19.8	13.9	597 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 since the beginning of the financial year 2021. The comparative figure for the prior-year period Q4/2020 has been adjusted accordingly to reflect the new logic.

Revenue development in %	2021
Change compared to prior year	**1.4**
FX effects	–2.0
Acquisitions/divestments	–2.6
Structure	–5.9
Organic	**11.9**

Order intake increased by 3.7 percent to EUR 702.1 million in 2021, which corresponds to organic growth of 14.8 percent. Significant growth was recorded in the new machinery business, particularly for milking robots, conventional milking systems and manure technology, while barn equipment and cooling technology recorded a significant decline following the divestment of Royal De Boer and Japy. The book-to-bill ratio of 1.11 was above the prior-year level of 1.08.

Despite divestments and supply chain bottlenecks, revenue increased slightly by 1.4 percent to EUR 633.9 million in 2021. Organic revenue growth also increased significantly by 11.9 percent. This increase was largely attributable to strong new machinery business in the areas of manure technology and conventional milking technology, while barn equipment and cooling technology declined for the reasons mentioned above. Overall, a large proportion of the regions achieved an increase in revenue, primarily in the Asia Pacific region and North America. In contrast, the Latin America and Northern and Central Europe regions reported revenue declines. Due to the disproportionate growth in new machinery business, the share of service revenue fell from 45.7 percent in the previous year to 43.9 percent in the reporting year.

EBITDA before restructuring expenses increased significantly by 13.8 percent to EUR 76.1 million. This was achieved primarily through price increases, better capacity utilization and targeted cost management. As a result, the corresponding margin also improved significantly by 1.3 percentage points to 12.0 percent.

In the year under review, ROCE was 19.8 percent, significantly up on the previous year’s figure of 13.9 percent.

Heating & Refrigeration Technologies

Heating & Refrigeration Technologies (EUR million)	2021	2020	Change in %
Order intake	617.0	625.3	–1.3
Revenue	584.0	662.8	–11.9
Share service revenue in %	41.8	36.2	562 bps
EBITDA before restructuring expenses	59.5	58.8	1.2
as % of revenue	10.2	8.9	132 bps
EBITDA	37.5	60.0	–37.5
EBIT before restructuring expenses	42.4	38.5	10.1
EBIT	13.8	26.2	–47.3
ROCE in % (3rd Party)*	24.3	15.5	887 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 since the beginning of the financial year 2021. The comparative figure for the prior-year period Q4/2020 has been adjusted accordingly to reflect the new logic.

Revenue development in %	2021
Change compared to prior year	**–11.9**
FX effects	0.3
Acquisitions/divestments	–11.1
Structure	0.1
Organic	**–1.2**

As of October 1, 2021, the Refrigeration Technologies division was renamed to Heating & Refrigeration Technologies. This reflects the enhanced integration of heating and cooling technology. There were no related changes to the scope of operations.

In the reporting year, order intake was down 1.3 percent (EUR 617.0 million) on the previous year due to the disposal of the Bock Group and the refrigeration contracting and service business in Spain and Italy. However, organic growth increased by 8.8 percent. Whereas the previous year was more strongly characterized by restrained investment decisions and order postponements due to the Covid-19 pandemic, the environment improved during the course of 2021. The book-to-bill ratio of 1.06 was above the prior-year level of 0.94.

Revenue of EUR 584.0 million was 11.9 percent below the previous year, primarily due to the above-mentioned divestments and bottlenecks in the supply chain. Organic growth, however, was down only slightly, by 1.2 percent. Almost all regions recorded a decline in revenues. Due to structural effects, North America was the only region to realize an increase in revenue, while Northern and Central Europe reported stable revenue. Service revenue developed well, significantly increasing its share of total revenue from 36.2 to 41.8 percent.

Despite divestments, EBITDA before restructuring expenses improved by 1.2 percent to EUR 59.5 million in the reporting year. Essentially, the improvement in earnings was due to positive margin effects, primarily due to the increase in service revenue as well as cost savings. The corresponding EBITDA margin improved significantly to 10.2 percent as a result of the portfolio adjustments and the focus on high-margin products, compared with 8.9 percent in the previous year.

At 24.3 percent, ROCE in the year under review was significantly up on the previous year's figure of 15.5 percent.

Others/Consolidation

Others/consolidation (EUR million)	2021	2020	Change in %
Order intake	–236.2	–330.3	28.5
Revenue	–235.3	–405.4	42.0
EBITDA before restructuring expenses	–63.8	–47.7	–33.7
EBITDA	–79.4	–83.0	4.3
EBIT before restructuring expenses	–76.1	–65.7	–15.9
EBIT	–91.8	–101.0	9.1

A decline in the consolidation of order intake and revenue were largely due to minor adjustments to the divisional structure as of January 1, 2021: Individual companies whose activities related to two or more divisions but were allocated to just one are now broken down by their respective business activities.

In the reporting year, EBITDA before restructuring expenses rose by EUR 16.1 million to EUR -63.8 million, primarily due to the establishment of services for GEA within GEA Group Services GmbH, which was consolidated for the first time in 2020, and the reimbursement of payments made to the divisions for lower than planned use of services provided by the GEA Corporate Center.

Employees

Compared with December 31, 2020, the workforce contracted by 89 to 18,143 employees (FTE) as of the reporting date. At the same time, an increase in the number of temporary employees and independent contractors amounted to 73 full-time equivalents, meaning that the total workforce declined slightly to 19,252.

The decline was caused by the disposal of the Bock Group and the refrigeration contracting and service business in Spain and Italy of the Heating & Refrigeration Technologies division. Employee numbers also declined in the Farm Technologies and Liquid & Powder Technologies divisions. In contrast, the number of employees in the Separation & Flow Technologies and Food & Healthcare Technologies divisions increased.

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

Employees* by region	12/31/2021		12/31/2020	
DACH & Eastern Europe	6,939	38.2%	6,883	37.8%
North and Central Europe	3,105	17.1%	3,040	16.7%
Asia Pacific	3,039	16.8%	3,005	16.5%
Western Europe, Middle East & Africa	2,906	16.0%	3,132	17.2%
North America	1,590	8.8%	1,618	8.9%
Latin America	564	3.1%	553	3.0%
Employees (FTE)	**18,143**	**100.0%**	**18,232**	**100.0%**
Contingent workforce (FTE)	1,109	–	1,036	–
Total workforce (FTE)	**19,252**	**–**	**19,268**	**–**

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

Net Assets, Financial Position, and Results of Operations of GEA Group Aktiengesellschaft

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 mainly include services from the Global Corporate Center, global excellence functions (procurement, production and logistics), global IT, human resources and business process outsourcing (BPO) for finance. Profit and loss transfer agreements exist with key domestic subsidiaries. In turn, the economic position of GEA Group Aktiengesellschaft depends on its subsidiaries' business development, which fundamentally corresponds to the development of GEA Group, as discussed in this chapter under section "Overall Assessment of Business Development."

Net assets of GEA Group Aktiengesellschaft (HGB) (EUR million)	12/31/2021	as % of total assets	12/31/2020	as % of total assets
Assets				
Intangible fixed assets	37.7	1.0	28.9	0.8
Tangible fixed assets	1.4	–	1.4	–
Long-term financial assets	2,319.6	60.3	2,319.2	60.1
Fixed assets	**2,358.7**	**61.3**	**2,349.5**	**60.9**
Receivables and other assets	875.1	22.7	924.0	24.0
thereof Receivables from affiliated companies	851.0	22.1	901.9	23.4
thereof Other assets	24.1	0.6	22.1	0.6
Securities	90.0	2.3	–	–
Cash	511.7	13.4	565.3	14.7
Current assets	**1,476.8**	**38.4**	**1,489.3**	**38.7**
Prepaid expenses	**11.6**	**0.3**	**17.2**	**0.4**
Total	**3,847.1**	**100.0**	**3,856.0**	**100.0**
Equity and liabilities				
Subscribed capital	520.4	13.5	520.4	13.5
Own shares	–6.6	–0.2	–	–
Capital reserves	250.8	6.5	250.8	6.5
Revenue reserves	376.5	9.8	436.7	11.3
Net retained profits	161.0	4.2	153.7	4.0
Equity	**1,302.1**	**33.8**	**1,361.6**	**35.3**
Provisions	**311.3**	**8.1**	**287.5**	**7.5**
Liabilities to banks	255.9	6.7	400.0	10.4
Trade payables	13.7	0.4	25.5	0.7
Liabilities to affiliated companies	1,959.0	50.9	1,774.7	45.9
Other liabilities	5.1	0.1	6.7	0.1
Liabilities	**2,233.7**	**58.1**	**2,206.9**	**57.2**
Total	**3,847.1**	**100.0**	**3,856.0**	**100.0**

GEA Group Aktiengesellschaft's total assets are nearly unchanged from the previous year. As part of central liquidity management, receivables from affiliated companies decreased by EUR 50.9 million and liabilities to affiliated companies increased by EUR 184.3 million. Other significant changes in total assets resulted from the early repayment of bank loans in the amount of EUR 150 million and the acquisition of securities in the amount of EUR 90 million. Overall, cash and cash equivalents decreased by EUR 53.6 million.

The increase in intangible assets is primarily attributable to the introduction of a uniform global ERP system.

Overall, equity decreased by EUR 59.5 million compared with the previous year. This was due to the 2,297,033 treasury shares acquired in fiscal year 2021. Of the acquisition cost of EUR 93.8 million, EUR 87.2 million was offset against revenue reserves and the imputed share of subscribed capital of EUR 6.6 million was reported as treasury shares. This compares with net income for the fiscal year of EUR 187.7 million less dividends paid of EUR 153.4 million. The equity ratio fell by 1.5 percentage points to 33.8 percent. In addition, appropriation to other revenue reserves amounting to EUR 27.0 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.

Income statement of GEA Group Aktiengesellschaft (HGB) (EUR million)	01/01/ - 12/31/2020	01/01/ - 12/31/2019
Revenue	115.8	182.4
Other operating income	168.3	236.0
Cost for purchased services	–48.8	–95.6
Personnel expenses	–66.2	–55.3
Amortization amd writedowns of intangible fixed assets and depreciation and writedowns of tangible fixed assets	–3.4	–28.2
Other operating expenses	–264.5	–274.5
Investment income	296.6	144.0
Net interest income	–0.6	7.9
Write-downs on financial assets and seurities held as current assets	–4.8	–2.8
Taxes on income	–4.4	–3.6
Net income after income tax	**188.0**	**110.3**
Other tax expenses	–0.3	–0.4
Net income for the fiscal year	**187.7**	**109.9**
Retained profits brought forward	0.3	0.8
Withdrawals from other revenue reservers	–	43.0
Appropriation to other revenue reserves	–27.0	–
Net retained profits	**161.0**	**153.7**

The revenues of GEA Group Aktiengesellschaft essentially comprise charges of EUR 93.8 million (previous year: EUR 163.2 million) that were allocated to subsidiaries in the 2021 fiscal year and income of EUR 20.6 million (previous year: EUR 18.9 million) from the trademark fee. In addition to externally sourced services, the group 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. Since fiscal year 2021, services from other group companies have no longer been charged via GEA Group Aktiengesellschaft, but via this service company. This change in accounting for services mainly resulted in a decrease in revenues and in costs for services purchased from group companies.

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 124.6 million (previous year: EUR 146.0 million) and currency translation losses of EUR 122.4 million (previous year: EUR 142.4 million) resulted in a net amount of EUR 2.2 million (previous year: EUR 3.6 million).

In addition to currency translation gains, other operating income mainly includes income from the reversal of provisions of EUR 22.2 million (previous year: EUR 11.6 million), income from the write-up of long-term financial assets amounting to EUR 6.5 million (previous year: EUR 0.0 million) and income from charges passed on and ancillary business totaling EUR 5.5 million (previous year: EUR 16.5 million).

Costs for externally sourced services – totaling EUR 43.0 million (previous year: EUR 44.0 million) – mainly comprises services provided by external companies required to execute the functions of the Global Corporate Center, the global excellence functions (procurement, production and logistics), global IT, human resources, as well as for business process outsourcing (BPO) for finance.

Personnel expenses increased by EUR 10.9 million compared with the previous year. This was mainly due to the increase in additions to accruals for bonuses and management bonuses as well as pension provisions.

In addition to scheduled write-downs on fixed assets of EUR 3.0 million (previous year: EUR 5.2 million), depreciation and amortization also includes write-downs on receivables from affiliated companies amounting to EUR 0.2 million (previous year: EUR 23.0 million), as well as write-downs of EUR 0.2 million (previous year: EUR 0.0 million) on emission rights.

In addition to currency translation losses, other operating expenses mainly include expenses for IT and licenses, expert and consulting fees, expenses for additions to the provisions for negative consequences from mining, expenses for cost allocations within the group and other third-party services. As in the previous year, the expenses for IT and licenses primarily include current expenses from the introduction of a uniform global ERP system. The expenses from additions to provisions for negative consequences of mining resulted mainly from an increase in the rate of costs growth compared with the previous year.

Investment income is the result of income from profit and loss transfer agreements totaling EUR 318.8 million (previous year: EUR 215.9 million), EUR 39.1 million (previous year: EUR 79.9 million) in expenses from profit and loss transfer agreements and income from other equity investments amounting to EUR 16.9 million (previous year: EUR 8.0 million).

Income from profit transfer agreements mainly comprise profits transferred by GEA Mechanical Equipment GmbH, GEA Group Holding GmbH, GEA Brewery Systems GmbH, GEA Refrigeration Germany GmbH, GEA Farm Technologies GmbH and GEA TDS GmbH. Expenses from loss absorption mainly comprise the losses assumed from GEA Group Services GmbH, GEA Diessel GmbH, LL Plant Engineering GmbH, mg Capital GmbH and mg Altersversorgung GmbH.

Net interest income decreased by EUR 8.5 million to EUR -0.6 million (previous year: EUR 7.9 million). This resulted primarily from lower interest income from the unwinding of non-current other provisions compared with the previous year. These fell by EUR 7.2 million to EUR 4.4 million (previous year: EUR 11.6 million) due to changes in interest rates.

The impairments on long-term financial assets contain write-downs on interests in companies totaling EUR 4.8 million (previous year: EUR 2.0 million) as well as write-downs on loans to affiliated companies in the amount of EUR 0.0 million (previous year: EUR 0.8 million).

Cash flow of GEA Group Aktiengesellschaft (HGB) (EUR million)	2021	2020
Cash flow from operating activities	441.6	473.6
Cash flow from investing activities	–101.3	–9.0
Cash flow from financing activities	–393.9	–53.4
Liquid funds	511.7	565.3

In the year under review, cash flow from operating activities amounted to EUR 441.6 million. This is EUR 32.0 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. Offsetting the lower cash flow was a significant improvement in net income of EUR 77.8 million to EUR 187.7 million.

Cash outflows from investing activities were increased from EUR 9.0 million in the previous year to EUR 101.3 million. The cash flow from investing activities for fiscal year 2021 mainly includes payments for the acquisition of securities (commercial paper) of EUR 90.0 million as well as payments for investments and proceeds from divestments for intangible assets and property, plant and equipment.

The cash flow from financing activities in the fiscal year mainly includes the previous year’s dividend payout of EUR 153.4 million (previous year: EUR 153.4 million), the repayment of a bank loan of EUR 150.0 million (previous year: borrowing of EUR 100.0 million) and the acquisition of treasury shares in the amount of EUR 93.8 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 2021 would be at or around the same level of the previous year, taking existing revenue reserves into account. Net retained profits of EUR 161.0 million exceeded the forecast amount. For fiscal year 2022, GEA Group Aktiengesellschaft expects net retained profits to be on par with the fiscal year under review, taking existing revenue reserves into account.

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, 2021, the subscribed capital of GEA Group Aktiengesellschaft was EUR 520,375,765.57 and was composed of 180,492,172 no-par value bearer shares. All the shares are ordinary shares. The rights and obligations arising from these shares are defined in the AktG (AktG - German Stock Corporation Act). This can result in restrictions affecting voting rights. For example, section 71b AktG states that GEA Group Aktiengesellschaft is not entitled to voting rights from its own shares (treasury stock). Outstanding capital in the amount of EUR 513,753 thousand corresponds to subscribed capital of EUR 520,376 thousand less the nominal value per share of redeemed shares in the amount of EUR 6,623 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

In fiscal year 2018, Massachusetts Financial Services Company, Boston, Massachusetts, U.S., reported that its interests in GEA Group Aktiengesellschaft had exceeded 10 percent of the voting rights.

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 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 noncash 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 a non-cash 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' preemptive 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 case: 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 privileges and/or obligations, while excluding shareholders' subscription 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 bearer shares (Article 4(6) of the Articles of Association, Contingent Capital 2021). The contingent capital increase will be implemented only 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 750,000,000.00 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 against contributions in kind. 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 preemptive 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 preemptive 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 subscription 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 dated April 19, 2018, in accordance with section 71(1) no. 8 AktG, GEA Group Aktiengesellschaft is authorized to purchase own shares 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 18, 2023. 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 19, 2018, are available in the invitation to the Annual General Meeting, which was published in the Federal Gazette on March 12, 2018.

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 250 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 250 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 changed 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

Neither the previous remuneration system, which still applied to all members of the Executive Board during the reporting period, nor the new remuneration system, which came into effect on January 1, 2021 and is to be applied uniformly to all Executive Board members starting January 1, 2022, provide 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

Details can be found under "Report on Opportunities and Risks", sections "Opportunity and risk management system" and "Internal control system."

Overall Assessment of Business Development

2021 was a very successful year for GEA. Despite a persistently challenging environment, the company succeeded in further unlocking its potential, increasing order intake, revenue and earnings, in some cases significantly. In addition, other key performance indicators such as net working capital and liquidity showed significant improvements.

Order intake rose by 11.0 percent to EUR 5,222 million, driven by significant double-digit growth in the Separation & Flow Technologies and Food & Healthcare Technologies divisions. Almost all customer industries recorded growth in the year under review, with Food, Pharma and Chemicals in particular recording significant double-digit growth rates. In organic terms, order intake rose by 14.0 percent. Overall, GEA recorded nine major orders (volume >EUR 15 million) with a total value of EUR 293 million in the Beverage, Pharma, and Food segments, including one in the growth market of new Food with an order value well into the high double-digit million euro range.

GEA achieved a 1.5 percent increase in revenue to EUR 4,703 million, or organic growth of 4.3 percent. Growth in the Separation & Flow Technologies, Food & Healthcare Technologies and Farm Technologies divisions more than offset the decline in the Liquid & Powder Technologies and Heating & Refrigeration Technologies divisions. In regional terms, the development of revenue was heterogeneous. The regions of Western Europe, Middle East and Africa, Northern and Central Europe, Asia Pacific and Latin America recorded an increase; by contrast, there was a decline in the DACH & Eastern Europe and North America regions. Revenue developed positively across almost all customer industries. The share of service revenue rose to 34.2 percent, compared to 33.6 percent in the previous year.

EBITDA before restructuring measures rose by 17.3 percent to EUR 624.8 million. The corresponding EBITDA margin improved significantly by 1.8 percentage points to 13.3 percent (previous year 11.5 percent). All divisions saw a year-on-year improvement in their EBITDA and EBITDA margin before restructuring expenses – in some cases, by several percentage points.

At EUR 305.2 million, consolidated net profit in fiscal year 2021 was significantly higher than the previous year's figure of EUR 96.8 million on the back of very good operating performance. Accordingly, earnings per share rose from EUR 0.54 to EUR 1.70. Earnings per share before restructuring measures were EUR 1.99 compared to EUR 1.03 in the previous year. Shares totaling around EUR 93.8 million were already repurchased as part of the share buyback program launched in August 2021 (volume up to EUR 300 million).

Net liquidity more than doubled to EUR 499.8 million, compared with EUR 245.3 million in the previous year. This increase was mainly due to the improvement in earnings and the significant reduction in net working capital. Net working capital as a percentage of revenue improved to 5.1 percent from 7.9 percent in the previous year.

Capital employed decreased significantly from EUR 1,943 million to EUR 1,594 million as of December 31, 2021, particularly as a result of the lower net working capital. Accordingly, return on capital employed (ROCE) improved significantly from 17.1 percent to 27.8 percent.

In the light of the very strong earnings trend during fiscal year 2021, the Executive Board and Supervisory Board will propose that the Annual General Meeting approve the payout of a dividend of EUR 0.90 per share, EUR 0.05 higher than in the previous year.

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 sustainable 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 December 16, 2019 (published in the Federal Gazette on March 20, 2020) to the greatest possible extent.

Declaration of Conformity

Between the issuance of the last Declaration of Compliance on December 17, 2020, and April 30, 2021, GEA Group Aktiengesellschaft complied with the recommendations of the German Corporate Governance Code as amended on December 16, 2019 (“GCGC 2020”) and published by the Federal Ministry of Justice and Consumer Protection in the official section of the Federal Gazette, except for the following deviations:

- Recommendation C.10 sentence 1 GCGC 2020, according to which the Chair of the Supervisory Board, the Chair of the Audit Committee, as well as the Chair of the committee that addresses Executive Board remuneration, shall be independent from the company and the Executive Board.

  The former Chairman of the Supervisory Board, Dr. Helmut Perlet, who had been in office through the end of the Annual General Meeting on April 30, 2021, who had also chaired the Presiding Committee that inter alia addresses Executive Board remuneration through that point in time, cannot be considered independent from the company in accordance with recommendation C.7 (2) GCGC 2020, since he has been a member of the Supervisory Board for more than twelve years.

GEA Group Aktiengesellschaft fully complied with the recommendations of the GCGC 2020 since May 1, 2021.

- At the Annual General Meeting on April 30, 2021, all seats held by shareholder representatives were newly elected. At its constitutive meeting held after the Annual General Meeting, the Supervisory Board elected Klaus Helmrich, who is independent, as the new Chairman of the Supervisory Board and the Presiding Committee of the Supervisory Board.

Looking forward, GEA Group Aktiengesellschaft declares its intention to fully comply with the recommendations of the GCGC 2020.

Düsseldorf, December 16, 2021

For the Supervisory Board	For the Executive Board	
Klaus Helmrich	Stefan Klebert	Marcus A. Ketter

Code of Conduct

GEA has begun to reorganize its codes of conduct and associated responsibilities as part of the new group strategy “Mission 26,” 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-relevant practices has been the responsibility of a dedicated sustainability department, which reports directly to the CEO. Going forward, all activities and reporting channels that were previously allocated among different departments will converge here. The above documents are published on gea.com under Company/Sustainability. Further information can be found in the non-financial (Group) statement of this Annual Report.

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, is 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 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 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 successfully completed in February 2022. Detailed information on GEA’s compliance organization and its functions can be found in the “Compliance” chapter of the separately published Sustainability Report at 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 new procurement and supply chain organization and the appointment of a new Global Supply Chain Director represented major steps toward the further standardization of global supply chain processes and alignment with “Mission 26” in the year under review.

For GEA, the topic of taxation (including tax compliance) is a key component of responsible corporate governance, through which organizations 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 rather than transferring them to countries with lower tax rates or where they are not subject to taxation at all. This is specified in the current Group Tax Directive. It is not in GEA's interest to establish structures that contravene this principle. 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 group's management decisions are not made based on tax rates or other tax issues.

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 for covering 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, such as for compliance approvals, compliance reports, compliance risk audits and third-party audits.

InfoSec, 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 2021 at gea.com.

Sustainability

Sustainable corporate governance 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 keep an eye on the associated social and environmental impacts.

During fiscal year 2021, GEA was again able to make a significant contribution to making products and processes more sustainable, improving employee involvement, and deepening the company's social commitment. The topic of sustainability is a central guiding principle of the "Mission 26" strategy, which was adopted during the year under review. It contains a clear roadmap up to the year 2026 and beyond. In it, GEA describes challenges that are essential for the business and the stakeholders and translate 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 the company's business activities in the areas of environmental, employee and social matters, respect for human rights and anti-corruption, and prepared them in accordance with the GRI standards. As part of these efforts, GEA will publish a separate non-financial statement (Sustainability Report) on March 3, 2022.

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. 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 condensed half-yearly financial statements 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 – German Commercial Code). The Supervisory Board engages the external auditor elected by the shareholders at the Annual General Meeting. The Audit Committee 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. Apart from the consolidated and annual financial statements, the Audit 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. It 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 remuneration. In addition to 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 website also contains the Remuneration Report for the past fiscal year and the auditor's report on the audit of the Remuneration Report, as well as the resolution adopted by a majority of 99.77 percent at the Annual General Meeting on April 30, 2021 confirming Supervisory Board remuneration as specified in the Articles of Association for the GEA Group Aktiengesellschaft.

Moreover, analyst meetings, press conferences and events for investors are hosted regularly. The presentations delivered on these occasions are also available on the website 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 2021 were duly disclosed and published on the company's website (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 common goal being the sustainable 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 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 him/her 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 members of the Executive Board 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 five to six 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 that 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 generally carried out every two years either with the assistance of independent advisers or in the form of self-evaluations conducted by the Supervisory Board. Recently, the Supervisory Board performed such a self-evaluation of its own activities and those of its committees through detailed questionnaires and evaluation forms during the 2020 fiscal year. The results and findings of this self-evaluation were discussed in depth at a Supervisory Board meeting. The composition of the Supervisory Board changed significantly in the past fiscal year, not least the chairmanship of the Supervisory Board. In light of these significance changes, the Supervisory Board refrained from conducting a self-assessment in fiscal year 2021. The activities of the Supervisory Board and its committees will again be assessed during the 2022 fiscal year.

Supervisory Board Committees

The work of the Supervisory Board is supported by committees. These are primarily the Presiding Committee, the Audit Committee and the Innovation Committee (until September 2021: the Technology Committee). 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.5 of the German Corporate Governance Code.

The Presiding Committee and the Audit Committee each usually meet four or five times during the fiscal year. The Innovation Committee usually meets twice a year. The Nomination Committee and the Mediation Committee hold meetings regularly and as required.

Resolutions of the Presiding Committee, Audit Committee and Innovation 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 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. Furthermore, the Presiding 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 Committee's responsibilities also include addressing – together with the Executive Board – the company's strategy, as well as its investments and financing. The members of the Presiding Committee are Klaus Helmrich (Chairman), Roger Falk, Rainer Gröbel and Colin Hall.

The Audit Committee, whose Chairwoman has a sound knowledge of and experience in applying financial accounting standards as well as internal control systems, primarily focuses on overseeing the financial accounting process, the efficiency of the internal control and risk management systems, the internal audit process, compliance as well as the audit of the annual financial accounts. The members of the Audit Committee are Prof. Dr. Annette G. Köhler (Chairwoman), Claudia Claas, Klaus Helmrich and Brigitte Krönchen.

Against the backdrop of GEA's endeavors to continuously develop new products, processes, services and business models and thus tap into new markets, the work of the Innovation Committee focuses on the assessment of the group's medium- to long-term innovation strategy. In particular, this includes addressing the innovation focus areas sustainability, new food, digitalization and modularization on the basis of the company's business strategy as well as advising the Executive Board and the management on the above topics. The members of the Innovation Committee are Prof. Dr. Jürgen Fleischer (Chairman), Roger Falk, Jörg Kampmeyer and Brigitte Krönchen.

The Mediation Committee performs its duties as set out in sections 27, 31 Mitbestimmungsgesetz (MitbestG – German Co-determination Act). It has the following members: Klaus Helmrich (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 Klaus Helmrich (Chairman), Colin Hall and Prof. Dr. Annette G. Köhler.

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 (gea.com). In addition, the Report of the Supervisory Board of this Annual Report provides further details on the activities performed by the Supervisory Board and its committees in fiscal year 2021. 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 stipulations to promote the participation of women in executive positions in accordance with section 76 (4) and section 111 (5) of the AktG

For many years, GEA has encouraged diversity at group level. During the past fiscal year, GEA adopted a new “Diversity & Inclusion” (D&I) concept for the entire group, which once again expands the diversity approach that has been in place to date and links it more closely than before with elements of the “Employee Life Cycle.” The D&I concept is presented and explained in detail in a separate Sustainability Report. As part of the D&I concept, GEA is also pursuing the goal of attracting more women to GEA and promoting female talent 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. The Supervisory Board was composed of six female and six male members, equally divided between the shareholders and the employees, during the reporting period. Since January 1, 2022, the Supervisory Board has been 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 50 percent during the past fiscal year and is currently around 42 percent.

At its meeting on June 22, 2017, the Supervisory Board set a 20 percent target for the share of women on the Executive Board and a deadline for achieving this by December 31, 2021. At present, the share of women on the Executive Board is 0 percent; the target figure has therefore not been achieved. However, the target was met or exceeded at times during the implementation period, namely from the beginning of October 2017 until the end of December 2019. From October 2017 to mid-March 2019, the share of women on the Executive Board was 20 percent, as one of five members of the Executive Board was female. Following the departure of a male member of the Executive Board in March 2019, the share of women on the Executive Board was as high as 25 percent by the end of 2019. One reason for the decline in the share of women on the Executive Board to 0 percent is the reduction in the size of the Executive Board to its current size of only three members: After the only female member of the Executive Board left the Group at the end of 2019, another male member left shortly thereafter. Since the beginning of March 2020, the Executive Board has included incumbent members Stefan Klebert, Marcus Ketter and Johannes Giloth. Another reason for not meeting the target defined in mid-2017 for the share of women on the Executive Board by the end of the specified period is the fact that the selection of Executive Board members is ultimately based on the professional and personal suitability and availability of candidates in individual cases. This resulted in no women being appointed to the current three-member Executive Board in the course of the appointment of new members, which began in 2018 and was completed in early 2020.

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, respectively, commencing January 1, 2022. This target is intended to apply until December 31, 2026.

In June 2017, 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, 2021, namely a 25 percent share of women on the first and a 30 percent proportion of women on the second management level. At present, the share of women on the first management level is 16.0 percent and the proportion of women at the second management level is 19.4 percent. The share of women on both the first management level and the second management level increased year-on-year (compare share of women at December 2020: 9.5 percent for the first and 14.6 percent for the second management level). Nevertheless, target figures for both management levels were missed. In particular, this was related to the lack of availability of sufficient numbers of suitable internal and external candidates with the necessary personal and professional qualifications. Future plans call for confronting this shortfall in the representation of women, which is typical in the mechanical and plant engineering sector in which the company operates, by establishing a diverse pool of talent at all management levels.

In November 2021, the Executive Board set a 17 percent target for the proportion of women represented on the first management level, which is to be attained by December 31, 2026. This would correspond to five women based on the number of managers assumed to be on this management level at the end of the implementation period. The Executive Board set a 21 percent target for the proportion of women represented on the second management level and likewise decided that this target is to be attained by December 31, 2026. This would correspond to seven women based on the number of managers assumed to be on this management level at the end of the implementation period.

To achieve this, the company has undertaken to recruit female candidates to fill at least one-third of positions that become vacant.

Targets for the other GEA Group companies 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.

GEA takes the corresponding measures (see separate GEA Sustainability Report) to ensure that the set targets are accomplished.

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

Together with the Executive Board, the Supervisory Board – with the support of the Presiding 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 diversity as a criterion, which takes into account numerous other aspects such as education, professional background, origin and international experience. 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, respectively.
- 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 desires to fill Executive Board positions with the best-qualified candidates from among internal and external managers.
- 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.

At its meeting on December 16, 2021, 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 amongst its members, in particular sufficient industry and sector knowledge relevant to GEA Group Aktiengesellschaft, 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. Each gender shall 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, i.e. Supervisory Board Chairman Klaus Helmrich, Prof. Dr. Jürgen Fleischer, Colin Hall, Jörg Kampmeyer, Prof. 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 Supervisory Board member must have expertise in the field of financial accounting, and at least one additional Supervisory Board member must have expertise in the field of auditing. In addition, the Chair of the Audit Committee should have special knowledge and experience in the application of accounting principles and internal controlling procedures and be familiar with the annual audit. 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. 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.

In its current composition, the Supervisory Board meets the target composition criteria and lives up to the competence profile.

NON-FINANCIAL GROUP STATEMENT

Concerning non-financial reporting

Since fiscal year 2016, GEA has annually identified 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.

GEA's Sustainability Report for fiscal year 2021 again follows the international standards set by the Global Reporting Initiative (GRI). The Sustainability Report for fiscal year 2021 is published as a stand-alone report – in addition to this Annual Report – and has been prepared in accordance with the GRI standards, applying the "Core" option.

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.

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 statement.

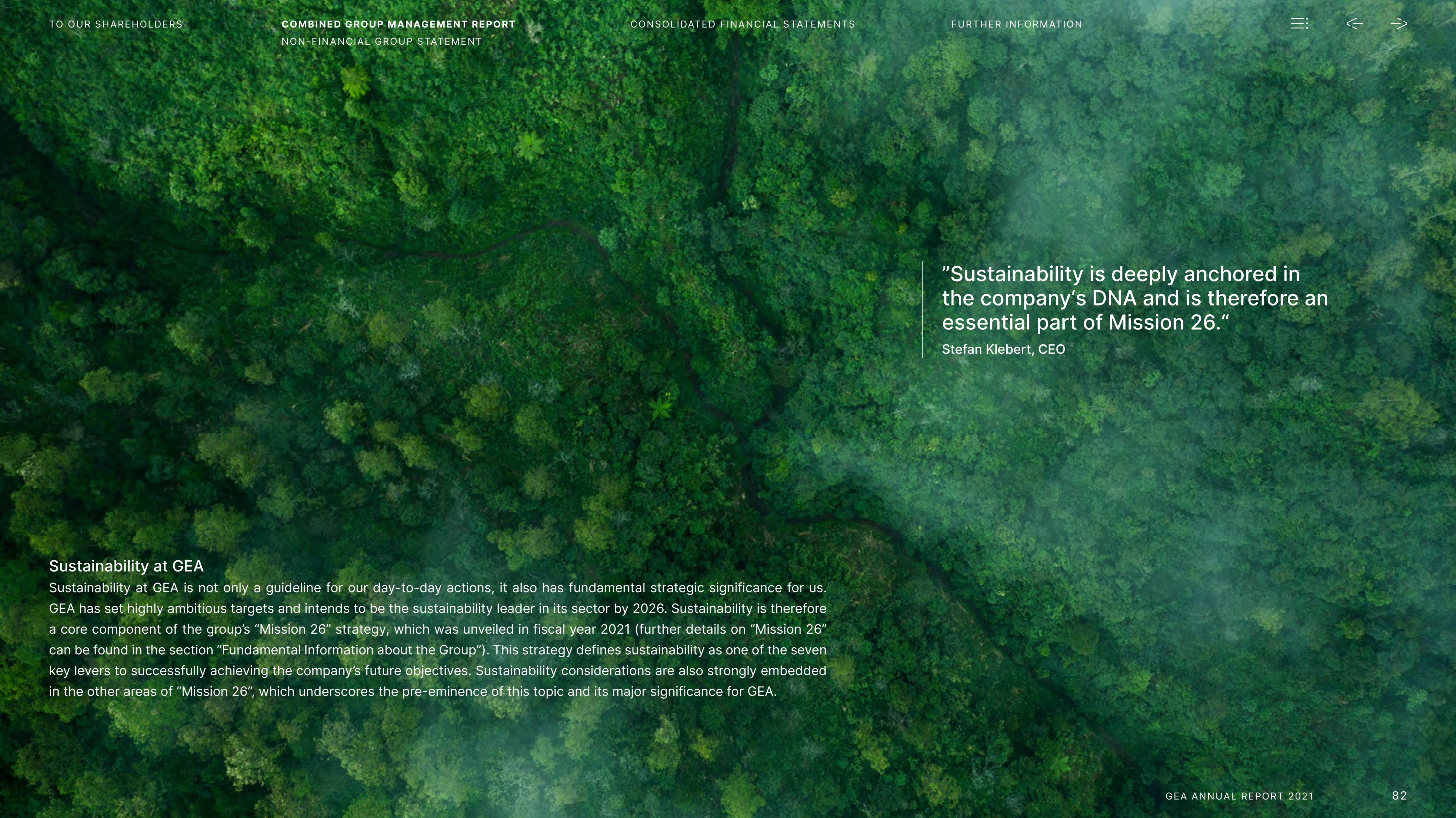
Under section 315c in conjunction with section 289c (3) no. 3 and 4 of the HGB, GEA is required to report on all known material risks associated with its own business activities, business relations, as well as its products and services, where these are highly likely to have a severe adverse impact on 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 2021 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 subjects covered by non-financial reporting are based on an analysis of the 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 2021 Sustainability Report, which is available at gea.com.

This non-financial statement comprises the following sections:

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



> ”Sustainability is deeply anchored in the company‘s DNA and is therefore an essential part of Mission 26.“
>
> Stefan Klebert, CEO

Sustainability at GEA

Sustainability at GEA is not only a guideline for our day-to-day actions, it also has fundamental strategic significance for us. GEA has set highly ambitious targets and intends to be the sustainability leader in its sector by 2026. Sustainability is therefore a core component of the group’s “Mission 26” strategy, which was unveiled in fiscal year 2021 (further details on “Mission 26” can be found in the section “Fundamental Information about the Group”). This strategy 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 pre-eminence of this topic and its major significance for GEA.

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, as expressed in its corporate purpose, “Engineering for a better world.” In the year under review, GEA developed its vision based on this guiding principle: “We safeguard future generations by providing sustainable solutions for the nutrition and pharmaceutical industries.”

GEA based its sustainability strategy on the 17 Sustainable Development Goals (SDGs) of the United Nations (UN). The SDGs aim to ensure sustainable economic, social and environmental development worldwide. By joining the UN Global Compact (GC), GEA has committed to its ten principles. The GC is a global pact between companies and the UN that aims to ensure more socially and environmentally responsible globalization. GEA reports on its progress in this area in the Sustainability Report.

GEA has set the target of reducing its greenhouse gas emissions to net zero along the entire value chain by 2040. In addition, its interim Scope 1, 2 and 3 targets for 2030 – namely reducing its Scope 1 and 2 greenhouse gas emissions by 60 percent and its Scope 3 emissions by 18 percent each compared with 2019 – have been validated by the Science Based Targets Initiative (SBTi). 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 also supports the Blue Competence sustainability initiative of the German Mechanical Engineering Industry Association (VDMA) and is committed to its twelve sustainability principles.

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 its procurement.
- 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 along the products' entire value chain (Scope 3 emissions) are to be reduced by 18 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, Re-use, Repair, Remanufacture, Recycle) by 2026, leading to a significant reduction in GEA's resource consumption.

Responsible operations

- By 2030, GEA will reduce greenhouse gas emissions from its own operations (Scope 1 and 2 emissions) by 60 percent compared with 2019.
- Half of GEA's total energy needs will 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 at least 95 percent by 2026.
- All preferred suppliers will satisfy GEA's sustainability criteria by 2026.
- GEA has set the target of passing on industry- and function-specific knowledge to a total of 100,000 people through skills-based volunteering by 2026.
- Each year, GEA will donate one percent of its net profit.

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 over the next five years.
- 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.

Sustainability management

Sustainable corporate governance has been a major theme at GEA for many years. "Mission 26" brings together all of the sustainability-related activities that were previously distributed between different departments in a group-wide Sustainability department. This department acts as an 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 reports directly to the CEO. It developed and communicated the above targets, provided support with regard to methodology and will evaluate the extent to which they have been achieved.

The sustainability targets were adopted by the full Executive Board as well as representatives of the divisions and regions (Global Executive Committee). To ensure that the "Mission 26" targets are met, each sustainability target has been structured as a project. Systematic project management applied consistently to all targets enhances transparency regarding responsibilities and the degree of target achievement. This makes it possible to identify and assess any issues in the project process at an early stage. Each target is sub-divided into several interim targets and has a specific time frame. The relevant project manager reports on the level of achievement internally at regular intervals, while GEA reports on an annual basis in its Sustainability Report. Furthermore the Supervisory Board is regularly informed by the Executive Board.

Sustainability principles

Sustainability at GEA is based on the following principles:

1. Group-wide Code of Conduct

The GEA Code of Conduct outlines the values, principles and policies that guide GEA's corporate conduct (see graphic). This Code of Conduct reflects the company's objective of ensuring group-wide compliance with standards while creating a work environment that is characterized by integrity, respect, and fair and responsible conduct. The Code of Conduct applies to all employees and bodies of GEA worldwide.

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.

3. Code of Corporate Responsibility

GEA's Code of Corporate Responsibility encompasses both ethical and legal standards that are binding on group employees worldwide. As a successful international engineering group with more than 18,000 employees and operating activities in more than 62 countries, GEA's commitment to international fair trade is a crucial factor in achieving global economic growth. The company recognizes the "Guidance on social responsibility" (ISO 26000) and aligns all its actions with the principles of social responsibility as well as the core subjects covered in the guidance.

Basic principles

Code of Conduct
Code of Corporate Responsibility
Code of Conduct for Suppliers and Subcontractors

Guidelines

- Governance Policy
- Social Contribution Policy
- Data Protection Policy
- Compliance (Integrity Policy, Third Party Policy, Competition Policy)
- Information Security Policy
- ISMS Framework Policy
- Internal Audit Policy
- Legal & Compliance Policy
- QHSE Policy
- Human Rights Policy
- Water Policy
- Conflict Minerals Policy

Processes

- Compliance Approval Processes
- Compliance Risk Assessment Process
- Records of Processing Activities Assessment (Data Protection Process)
- Processing Activities Assessment (Data Protection Process)
- Data Protection Impact Assessment
- Vendor Assessment (Data Protection Process)
- Asset Assessment (Data Protection Process)
- IT Security Risk Assessment
- Breach Notification Process
- Handling of Data Subject Requests (Data Protection Process)

Key sustainability themes

Each year, GEA identifies topics relevant to understanding the economic, environmental and social impact of the company's actions (see table). Alongside its internal assessment, the company also takes account of the expectations and interests of GEA's key stakeholders: investors, customers, employees and independent bodies, such as non-governmental organizations. To prepare the sustainability report in accordance with the legal requirements (German CSR Directive Implementing Act, CSR-RUG) and the Global Reporting Initiative (GRI) guidelines, a materiality analysis was also conducted in 2021. In the process, 13 topics from the following six fields of action have been defined as relevant within the meaning of the CSR RUG:

- Sustainable Solutions
- Environmental protection
- Occupational health and safety
- Supply Chain
- Employees
- Compliance and Corporate Governance

Further information on these and other topics in the six fields of action can be found in the GEA Sustainability Report 2021.

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 QHSE 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 applicable in all GEA entities. Implementation takes place with the support of the global QHSE organizations. In total, GEA has 18 different ISO management system certificates (see table).

In 2016, GEA began to have its sites certified with integrated management systems. GEA Group Aktiengesellschaft, headquartered in Düsseldorf, is certified according to standards ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 and thus leads the group. Part of the group's "Mission 26" strategy is to certify all GEA production sites in accordance with the management systems for quality, environment and occupational safety. In the year under review, a coverage rate of 63.8 percent was achieved for ISO 9001:2015, 31 percent for ISO 14001:2015 and 24.1 percent for ISO 45001:2018. By 2026, half of the annual energy requirement is to be covered by a certified energy management system in accordance with ISO 50001:2018. In the reporting year, this figure was already around 25 percent of the total energy requirement. Eight sites are therefore still being certified. Environmental protection measures and projects as well as the survey of consumption are collected independently of certification and implemented in coordination with the "QHSE" department.

Management System	Number of certificates 2021	Number of certificates 2020	Number of certificates 2019
DIN EN ISO 9001:2015	89	92	89
DIN EN ISO 14001:2015	39	39	38
DIN EN ISO 45001:2018	38	35	30
DIN EN ISO 50001:2018	15	14	16
Total number of certificates	**181**	**180**	**173**

ISO 9001 defines the minimum requirements for a quality management system that an organization must meet in order to provide products and services that meet customer expectations and regulatory requirements. At the same time, the management system should be subject to a continuous improvement process.

The international environmental management standard **ISO 14001** defines the requirements for an environmental management system and is part of the family of standards in environmental management.

ISO 45001 is a standard published by the International Organization for Standardization (ISO) in March 2018 and describes requirements for an occupational health and safety (OH&S) management system (AMS) and guidance for implementation

ISO 50001 regulates the establishment of an operational energy management system for the purpose of sustainably increasing energy efficiency.

ESG ratings and rankings

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

DAX ESG 50

GEA was among the first 50 companies to be included in the DAX 50 ESG Index at its inception in 2020 thanks to its exemplary approach to environmental, social and corporate governance issues.

CDP

At the end of 2021, CDP (formerly the Carbon Disclosure Project) again awarded GEA for its performance and reporting transparency, with an “A” rating for both water stewardship and climate protection. Of the 12,000 companies assessed worldwide, GEA is among just 272 that made the ‘A’ list. This rating grades GEA above the regional European average (B) and as average for the capital goods sector (C) on the issue of climate protection. On water stewardship, GEA’s rating grades it above average compared to both its regional European cohort (B) and the capital goods sector (B-). CDP again tightened its requirements in 2021, particularly with regard to climate protection.

EcoVadis

GEA achieved the ranking of “Gold Standard” in the EcoVadis sustainability assessment for the first time in fiscal year 2021. This achievement puts the company among the top two percent of all companies in the mechanical engineering sector ranked by EcoVadis worldwide. Since 2016, GEA has had its sustainability management examined annually in ever greater detail by the independent rating agency EcoVadis and has succeeded in continually improving its score. Scoring 68 points out of 100, GEA attained Gold level in the 2021 rating. EcoVadis analyzes the sustainability performance of companies in terms of the environment, labor and human rights, ethics and sustainable procurement.

MSCI

In October 2021, GEA’s rating in the MSCI ESG Ratings assessment performed by US financial service provider MSCI was upgraded from “A” to “AA”.

Further awards

Following the December 2021 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 July 2021, GEA received “Prime Status” (leadership in its industry index group) in the ISS ESG Corporate Rating. ISS ESG provides services for institutional investors. In November 2021, GEA received an ESG Risk Rating of 22.4 and was assessed by Sustainalytics to be at medium risk of experiencing material financial impacts from ESG factors. GEA’s ESG Risk Rating places it in the ninth percentile (first percentile = lowest risk) in the machinery industry assessed by Sustainalytics. The lower the risk rating, the better. Sustainalytics, a Morningstar company, is a leading provider of analyses, ratings and data in the area of ESG.

CDP

EcoVadis

MSCI[1]

ISS[2]

Sustainalytics[3]

FTSE Russell

1) In 2021, GEA Group Aktiengesellschaft received a rating of AA (on a scale of AAA-CCC) in the MSCI ESG Ratings assessment. See also the link to the **MSCI Disclaimer Statement**.
2) ESG Corporate Rating | ISS (issgovernance.com)
3) Copyright ©2021 Sustainalytics. All rights reserved. This [publication/ article/ section] contains information developed by Sustainalytics (www.sustainalytics.com). Such information and data are proprietary of Sustainalytics and/or its third party suppliers (Third Party Data) and are provided for informational purposes only. They do not constitute an endorsement of any product or project, nor an investment advice and are not warranted to be complete, timely, accurate or suitable for a particular purpose. Their use is subject to conditions available at https://www.sustainalytics.com/legal-disclaimers.

Sustainable Solutions

GEA is one of the largest suppliers of systems for 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 plays a key role in the supplier selection process of its customers. Customers today expect GEA’s plants, machinery and components to contribute to 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 view of this, GEA set the following sustainability targets in relation to product development as part of the group’s “Mission 26” strategy:

- By 2030, Scope 3 greenhouse gas emissions are to be reduced by 18 percent compared with 2019.
- By 2030, GEA will offer customers the option of “zero freshwater use” for the operation of plants and machinery.
- By 2030, GEA’s packaging-related products will use sustainable packaging materials.
- The packaging used for GEA products and service parts must meet one of the five Rs of the circular economy (Reduce, Re-use, Repair, Remanufacture, Recycle) by 2026.

Product management

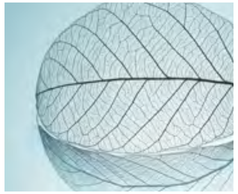
The topic of sustainable solutions is strategically managed at GEA by the Sustainability department. This department develops and communicates qualitative and quantitative targets, provides support with regard to methodology and tracks target attainment levels. The Sustainability department is the central unit responsible for establishing GEA’s sustainability targets and ensuring their achievement. Operational implementation, i.e. the development of sustainable solutions, is the responsibility of the divisions.

GEA has an overarching product development process, which 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 on a trend-scouting process “search – assess – observe” centered on these sustainability sub-categories. The end product of this trend process is a trend radar for sustainable technologies and market or customer trends, which can be used by the divisions and business units to develop specific sustainable solutions. Successful emission reduction through GEA products also includes the partners in the supply chain. For this reason, GEA is in permanent dialog with its suppliers.

Product development

GEA's product development 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 since decisions in the development phase have a lasting impact well beyond company boundaries and must therefore be able to withstand critical scrutiny with regard to sustainability. The sustainability criteria mentioned are already taken into account in the specification and concept phase of the development process. 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 desired sustainability effects are ensured through key performance indicators, which indicate the sustainability parameters in product development and enable strategic monitoring.

Product responsibility

Product responsibility lies with the divisions respectively the business units. These units control the development and continuation of their product portfolios based on the group's "Mission 26" strategy. The potential risk of each plant, machine or component must be separately assessed in the construction, 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. The failure mode and effects analysis (FMEA) method is used. FMEA 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.

For the purposes of evaluating and assessing incidents involving GEA products that have (or may have) already resulted in either a hazard to life and limb or resulted in damages for customers, the GEA divisions have established Product Safety Committees (PSCs). The inter-disciplinary PSCs are tasked with initiating suitable measures to prevent and rectify product safety defects while minimizing GEA's legal and financial risk 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). 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 Yammer.

Life cycle analyses

With regard to "Mission 26" and the sustainable solutions targets, life cycle assessments are an essential component of planning the 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 addition, where necessary, a life cycle assessment is also conducted in relation to technology status as part of the portfolio analysis. In this case, the current life cycle phase of the technology is determined in order to initiate the relevant strategic measures to develop the technology.

Digitalization

GEA' digital innovations are guided by the sustainability goals of its customers. New digital services such as "Condition Monitoring" and "Performance Plus", which are based on the industrial internet of things (IIoT) and data science, have made it possible to optimize the productivity of machinery and plants, and to extend their useful life. This has a direct impact on the resources required for new machines as well as resource consumption over their full life cycle. The environmental footprint is further reduced through the digitalization of customer interfaces, particularly for services, including the provision of remote support.

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 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 makes it possible to respond to customer feedback and identify areas for improvement at an early stage. In the reporting period, customer satisfaction in service increased further despite the already very good prior-year figure, reaching an NPS of 54 in 2021 (2020: 53*). In 2021, continuous and case-based customer satisfaction measurement was also introduced globally for the first time in the new machine business. The corresponding Net Promoter Score is 41. The net promoter score is a figure between +100 and –100 that represents the likelihood that a customer would recommend a product or service.

41

Net Promoter Score 2021
for new machine business global

54

Net Promoter Score 2021
for Service (2020: 53)

*) Due to subsequent reporting, the figure for 2020 had to be adjusted.

Examples of sustainable solutions

In 2021, GEA developed and supplied a completely new juice and smoothie production plant for a beverage manufacturer in the Netherlands. The purpose of this project was to help the manufacturer on its journey towards carbon-neutral production. GEA was involved from the outset in the process of planning the factory. By applying sustainable engineering solutions (SEnS), energy consumption and operating costs have been cut by 30 percent, while CO_2 emissions were reduced by up to 90 percent. The plant design also takes into account the consumption of natural resources: special condensers mean that production uses 45 percent less water than a conventional plant design.

With GEA's support, India's leading milk cooperative put the country's largest skim milk powder plant into operation in 2021. One hundred percent of the evaporated water from milk powder production is condensed and reused. All of the water contained in milk, which is normally disposed of, is thus collected, processed and used to clean the plant. The new plant will make it possible to save a total of 420 million liters of water (i.e. 90 percent) per year.

GEA developed a small centrifuge for the German research initiative "Representative Investigation Strategies for an Integrative System Approach to Specific Emissions of Plastics into the Environment" (RUSEKU), which can be used to analyze the level of microplastics in water. This enables municipal water suppliers to determine the amount of microplastic contained in the drinking water supply.

The use of a direct drive in the new GFS series separator makes energy savings of around five percent possible. Using the IIoT Dashboard or energy consumption measurement makes it possible for olive oil mills to reduce energy consumption by up to 20 percent per production unit.

In a pilot project using industrial refrigeration technology, GEA demonstrated that energy consumption can be reduced by around ten percent using IIoT and cloud processing of other data sources, such as weather data. This digital project will be developed for series production in 2022.

Further information on "Sustainable Solutions" can be found in the GEA Sustainability Report 2021.

Environmental protection

The 2015 Paris Agreement aims to hold the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. This has led to more stringent climate protection requirements, particularly with regard to greenhouse gas emissions. The industrial sector has also committed to significantly reducing its carbon footprint over the coming years to achieve this. As a multi-national company, GEA has taken up its responsibility and committed to the following goals under the group's "Mission 26" strategy:

Energy consumption and greenhouse gas emissions

In June 2021 – alongside its long-term target of achieving net zero by 2040 – GEA presented its interim targets for reducing its own greenhouse gas emissions. By 2030, its Scope 1 and 2 greenhouse gas emissions are to be reduced by 60 percent and its Scope 3 emissions by 18 percent each compared with the base year 2019. The Science Based Targets initiative (SBTi), a globally recognized independent initiative to verify climate goals, validated these reduction targets in September 2021. The SBTi thus confirmed that GEA's interim goals are consistent with the latest understanding of climate science and make an effective contribution to achieving the goals of the Paris Agreement.

Water

GEA has set other ambitious environmental targets in addition to its climate goals. For example, sites in regions experiencing water scarcity must implement a water strategy by 2026. One of its ongoing aims is to continuously reduce water consumption and increase water reuse.

Waste

In addition, the waste recycling rate is to be increased to more than 95 percent over the next five years. Environmental protection is a central pillar of the group's "Mission 26" strategy and an integral part of the company's products, services and processes. GEA has committed to responsibly structuring value creation processes and to contributing to its customers' sustainable business practices and the protection of the natural environment through ongoing improvements to the efficiency of its products and process solutions. Efficiency implies a minimum input of energy, the conservation of natural resources and a high level of recyclability, always in relation to optimized performance.

Environmental and energy management

Environmental protection integral to GEA's business strategy, as well as to its daily processes in consultation with business partners and other stakeholder groups. Environmental management at GEA is part of central QHSE management, which reports directly to the Chief Operation Officer. Environmental indicators are compiled and analyzed by all relevant GEA sites. The results are evaluated at regular intervals with those responsible for the divisions and regions, and the monitoring of target achievement is coordinated. The guideline "QHSE – Environmental Aspects" has been produced to regulate the management of environmental aspects. This binding guidance specifies how the major environmental aspects of activities, products and services should be determined.

Energy management is decentralized to ensure local legal requirements are met. By 2026, half of the annual energy needs, attributable to ten sites, are to be controlled by a certified energy management system. Two of these sites are already certified under ISO standard 50001 today, the remaining eight sites will follow in the next years (see overview of certifications in chapter Sustainability management). There is also a group-wide target to reduce energy consumption by 1.5 percent per year.

GEA reports on defined non-financial strategic environmental indicators in this Annual Report. The reporting relates to energy consumption and CO_2 emissions, water consumption (water withdrawal less wastewater) as well as waste volume and waste recovery rate.

Energy:
Energy consumption and greenhouse gases

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

Waste:
Waste generation and waste recovery rate

Energy consumption and greenhouse gas emissions

GEA has recorded greenhouse gas emissions by region across all three scopes since 2017. As of 2019, for countries in which energy suppliers can provide reliable fuel mix data, GEA has reported the CO_2 equivalents (CO_2e) calculated based on this data. In 2021, GEA recorded greenhouse gas emissions at 90 locations, including production sites, service branches and administrative offices. Across the globe, energy consumption figures for Scope 1, 2 and 3.6 energy are collected using a standardized system (SoFi) and reported as follows:

- Scope 1: direct greenhouse gas emissions from the burning of mineral oil, different gases, diesel, kerosene and petrol
- Scope 2: indirect greenhouse gas emissions from the consumption of electricity, heat, steam and cooling energy
- Scope 3.6: greenhouse gas emissions from business travel

Apart from market-based figures, the emissions data is in line with the conversion factors stated in the GHG Protocol/IEA Ver. 15 (05/2021) – IEA 2020. Scope 1 and 2 emissions are reported quarterly by the sites and once per year in the Sustainability Report.

In 2021, additional Scope 3 data was also collected or calculated in accordance with internationally recognized methods:

- 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 3.7: 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

Other emissions, such as methane, nitrogen oxide (NO_x), sulphur dioxide (SO_2) and volatile organic compounds (VOCs) are only generated by GEA in very small quantities. All captured climate-relevant emissions are converted into CO_2 equivalents and included in the overall figures.

Water

Water data is gathered by QHSE management at selected sites. In particular, these include production sites, service organizations, repair shops, sanitation plants, sites with ISO 14001 certified management systems, and offices and warehouses with a significant environmental impact. The amount of water drawn from the communal network and groundwater from the company’s own wells, as well as the volume of waste water, are recorded.

Waste

Data on waste is also gathered by QHSE management at selected sites. The waste volumes recorded include communal waste, hazardous waste and recyclable residues.

Measures and results

Energy consumption & greenhouse gas emissions

GEA's total energy consumption (Scope 1 and 2) amounted to 254,233 MWh in the reporting period. Consumption thus increased by 10.4 percent compared with the previous year (see tabel on energy consumption). Total CO_2 emissions (market-based) amounted to 50,803 metric tons in the reporting year, a reduction of 13.3 percent compared with 2020 (see table on greenhouse gas emissions). GEA is thus well on the way to achieving its target of reducing greenhouse gas emissions in Scope 1 and 2 by 60 percent by 2030.

The high consumption of natural gas and the longer-than-average heating period in Germany were responsible for the increase in energy consumption. In addition, the number of reporting sites increased (2021: 90; 2020: 83). The fact that all sites in Belgium, Germany, Italy and Austria were supplied with 100 percent electricity from renewable sources in 2021 had a beneficial effect on the balance sheet of greenhouse gas emissions. In addition, a start was made on replacing GEA's vehicle fleet with fully electric vehicles and on converting lighting systems to energy-saving LED lights. And energy is supplied at two sites via particularly energy-efficient combined heat, power and cooling systems using modern combined heat and power plants.

Water

In 2021, GEA recorded the water drawn from the communal supply and wells in addition to the water discharge at 89 locations (previous year: 82), which includes production sites, service organizations and administrative offices (see table water). Overall, water consumption increased by 8,975 cubic meters in the reporting period. This was attributable to water lost due to leaks of 17,900 cubic meters at a site in France and another site in Italy. To achieve the continuous reduction targets, two sites in India, for example, are processing their own effluent and then returning it to the process loop. Several sites collect rainwater to water green spaces. Effluent that cannot be returned to the communal network is collected and processed by external waste disposal companies.

Waste

In 2021, GEA recorded waste volumes at 75 locations (previous year: 71), including production sites, service organizations and administrative offices (see table waste). In total, GEA generated 13,037 metric tons of waste in the reporting period. The absolute volume of waste therefore increased by 0.3 percent compared to the previous year. The recycling rate was 95.6 percent. Hazardous aqueous substances and emulsions accounted for 832 metric tons (6.4 percent) of the waste are halogen-free machining emulsions and solutions as well as aqueous rinsing liquids. All hazardous waste was collected by external waste disposal companies and completely prepared. Plastic waste such as the disposable containers of cleaning agents from the Farm Technologies division are recycled.

Further information on “Environmental protection” can be found in the GEA Sustainability Report 2021.

Key performance indicators

Energy consumption

in MWh	2021	2020	2019	Change compared to previous year in %
Total energy consumption (Scope 1 and 2)	254,233	230,339	236,176	10.4
thereof electricity	87,317	87,579	90,088	-0.3
of which electricity from renewable energies	48,477[1]	214[2]	-	99.9
thereof natural gas	124,357	105,131	103,293	18.3
thereof heating oil	2,648	2,656	3,318	-0.3
thereof others[3,4]	39,911	34,974	39,477	14.1

1) 2021: Germany, Italy, Belgium, and Austria
2) Since 2020: Austria
3) Fossil fuels such as Diesel, gasoline, kerosene
4) Changes in calculation led to a re-valuation for New Zealand in 2020

Greenhouse gas emissions[1]

in t CO_2e	2021	2020	2019[2]	Change to previous year in %	Change to base year 2019 in %
Scope 1: Direct greenhouse gas emissions	35,077	30,938	35,550	13.4	-1.3
Scope 2: Indirect greenhouse gas emissions[3]	15,726	27,664	31,998	-43.2	-50.9
Total Scope 1 and 2 greenhouse gas emissions[4]	50,803	58,602	67,548	-13.3	-24.8
Scope 3 Greenhouse gas emissions					
Scope 3.1: Purchased products and services[5]	1,174,183	1,143,658	1,241,575	2.7	-5.4
Scope 3.2: Capital goods[5]	16,732	16,297	17,692	2.7	-5.4
Scope 3.3: Fuel and energy-related emissions (not in Scope 1 and Scope 2)[6]	16,580	12,369	13,473	34.0	23.1
Scope 3.4: Upstream transportation and distribution[5]	110,539	107,666	116,884	2.7	-5.4
Scope 3.5: Waste	895	850	1,089	5.3	-17.8
Scope 3.6: Business travel[6]	5,864	3,602	18,412	62.8	-68.1
Scope 3.7: Employee commuting	7,121	7,246	10,034	1.7	-29.0
Scope 3.11: Use of sold products[7]	26,511,385	21,295,726	24,768,194	24.5	7.0
Scope3: Total upstream greenhouse gas emissions	1,331,914	1,291,688	1,419,159	3.1	-6.1
Scope 3: Total downstream greenhouse gas emissions	26,511,285	21,295,726	24,768,194	24.5	7.0
Scope 3: Total greenhouse gas emissions	27,843,299	22,587,414	26,187,353	23.3	6.3

1) Greenhouse gas emissions were calculated using the UK DEFRA 2019 to 2021 emission factors, where applicable
2) Adjusted due to changes in allocation and calculation as well as acquisitions and divestments of companies
3) Market-based emissions according to GHG Protocol Scope 2 guidance. Where no contract-specific emission factors were available, the GHG Protocol/IEA Ver. 16 (11/2021) - IEA 2020 emission factors were used. Scope 2 emissions calculated using the location-based method: 31,504 t CO_2e in 2021
4) Market-based emissions according to GHG Protocol Scope 2 guidance. Where no contract-specific emission factors were available, the GHG Protocol/IEA Ver. 16 (11/2021) - IEA 2020 emission factors were used. Scope 1 and 2 emissions calculated using the location-based method: 66,581 t CO_2e in 2021
5) 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 listed (other climate-impacting gases neglected). For 2020 and 2021, the calculated values from 2019 were extrapolated based on the respective purchasing volume.
6) Global air travel; rental cars for Europe and USA; travel by German rail estimated based on 2020.
7) Emissions calculated through direct consumption data with a coverage rate for 2019, 2020, and 2021 of >80%

Water

in m³	2021	2020[1]	2019	Change compared to previous year in %
Water withdrawal total[2]	357,849	334,782	308,966	6.9
thereof municipal water	300,402	302,386	270,452	-0.7
thereof groundwater	57,446	32,396	38,514	77.3
Water discharge total[3]	284,436	270,345	264,309	5.2
Water consumption total	73,412	64,437	44,657	13.9
Ratio of water consumption to water withdrawal (in %)	20.5	19.2	14.5	1.3
Number of reporting sites	89	82	77	–

1) Due to changes in allocation and calculation as well as acquisitions and divestments of companies the basis of reporting sites was corrected for 2020
2) In 2021, two leakages (total water withdrawal of 17,900 m³ were detected in France and Italy
3) Water discharge is released into the municipal wastewater network

Waste

in t	2021	2020[1]	2019	Change compared to previous year in %
Waste generation total[2]	13,037	12,997	13,928	0.3
thereof hazardous waste	832	854	1,285	-2.6
thereof non-hazardous waste	12,205	12,143	12,643	0.5
Waste directed to disposal, non-hazardous[2]	1,386	1,312	1,439	5.6
thereof landfill	566	591	674	-4.3
thereof incineration with energy recovery	806	710	759	13.5
thereof incineration without energy recovery	14	10	6	32.4
thereof other disposal operations	-	-	-	-
Waste directed to disposal, hazardous[2]	832	854	1,285	-2.6
thereof landfill	-	-	-	-
thereof incineration with energy recovery	-	-	-	-
thereof incineration without energy recovery	-	-	-	-
thereof other disposal operations[2,3]	832	854	1,285	-2.6
Waste diverted from disposal, non-hazardous	10,819	10,831	11,204	-0.1
thereof preparation for re-use	-	-	-	-
thereof recycling	10,819	10,831	11,204	-0.1
thereof other recovery operations	-	-	-	-
Waste recovery rate (in %)[4]	95.6	95.4	95.2	0.2
Number of reporting sites	75	71	68	-

1) Due to changes in allocation and calculation as well as acquisitions and divestments of companies the basis of reporting sites was corrected for 2020
2) Disposal off-site
3) Treatment of halogen-free machining emulsions and solutions and aqueous rinsing liquids
4) 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

Occupational health and safety

GEA places very great importance on maintaining and promoting the health of its employees. It aims to prevent all types of accidents and illnesses through preventive measures. Consequently, GEA is constantly developing the area of occupational health and safety. Well-being is essential to professional performance and handling the physical and mental challenges of a company undergoing transformation. Creating a safe working environment for all employees, contractors and service providers is a top priority for GEA. A strong occupational safety culture contributes to better performance for the company as a whole.

Zero accidents by choice! GEA has had a “zero accidents” target for many years. The company protects all of its employees and contractors irrespective of where they work. Contracts with customers, suppliers and subcontractors are always entered into in accordance with the respective safety standards of both contracting parties. This means that if the standards of the contractual partner exceed those of GEA, the higher standards will also apply to GEA’s employees. Contracts include corresponding requirements on occupational health and safety as well as related procedures. Occupational health and safety also directly relates to Agenda 2030 – the UN Sustainable Development Goals (SDGs), namely SDG 3 “Good health and well-being” and SDG 8 “Decent work and economic growth”.

Management

The central occupational health and safety management system uses systematic processes to avoid accidents at work and work-related injury or illness and generally safeguards employee health in the workplace. GEA Group Aktiengesellschaft’s occupational health and safety management system is ISO 45001 certified. Alongside the central QHSE unit, GEA has additional decentralized QHSE units at divisional, regional, country and company level. The primary aim is to ensure that all employees have a safe and healthy working environment as well as to fulfill legal requirements and GEA’s occupational safety standards. Depending on its size, a site may have several employees with responsibility for occupational 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 are then generally the HSE managers for the respective entity. In Germany, for example, these are occupational safety specialists.

The occupational safety guidelines are provided in the QHSE policy. The “GEA Safety Core Rules” form the core of the work safety standards defined at GEA. Reviews of occupational health and safety management take place via internal occupational safety audits and by regularly updating and adapting the risk assessments. Occupational health care is provided in accordance with national requirements.

Measures and results

The main causes of accidents, the nature of the injuries, as well as the body part where the injuries are sustained and additional information have been systematically recorded since 2019. The increased level of detail facilitates analysis, particularly with regard to accident focus and causes. The GEA Safety Core Rules, which were introduced in 2017, apply worldwide and represent the minimum standards for occupational health and safety. They are available in the GEA learning centre in 14 languages in the form of online training courses and videos. All GEA employees receive regular training on the occupational safety risks associated with the work they perform. This training takes into account relevant national regulations. There are also additional briefings and checklists for certain activities and equipment with potential hazards, for instance when working with forklift trucks. Country-specific training courses on health and safety at work that comply with the respective national regulations fall within the responsibility of the managing directors or site managers. To review the degree to which the GEA occupational safety standards have been met and help develop specific measures, regular centrally organized HSE excellence audits are carried out at GEA entities.

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 includes events involving workers that are not employees or whose work and/or workplace is not controlled by 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 learning 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 connected to GEA products and plants. These incidents are also recorded and analyzed if the incident was not caused by a GEA product or plant.

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 very well regarded by employees. More close calls and unsafe situations were reported than in the previous year, indicating an increase in risk awareness.

The number of accidents declined by 7.2 percent compared with the previous year (see table work safety number). With approximately the same number of working hours, GEA’s 2021 Lost Time Injury Frequency Rate went down to 5.15 (previous year: 5.44) (see graphic accident frequency). A total of 205 accidents (previous year: 221) were reported, with 260 sites – i.e. 76 percent of the GEA sites included in the survey – remaining without accidents that entail a period of absence (previous year: 73 percent). There were no fatal workplace accidents in 2021 (previous year: 1). The Lost Time Injury Severity Rate increased slightly overall due to long-term illnesses caused by occupational accidents to 128 days lost following accidents per million hours worked (previous year: 114.56). The increase in the rate of other incidents to 264 (previous year: 92) is to be rated positively. Measures to eliminate unsafe situations or actions could help to prevent accidents.

Targets

As part of its sustainability strategy, GEA set the target of continuously reducing the number of workplace accidents. The aim is to reduce both the Lost Time Injury Frequency Rate and the Lost Time Injury Severity Rate by ten percent per year up to 2026 and to increase the Proactive Injury Rate by ten percent per year over the same period. The long-term target is zero accidents. An additional target is for all 57 production sites to be covered by an ISO 45001 certified management system by 2026. Currently, 24 percent of sites have such a management system.

Further information on “Occupational health & safety” can be found in the GEA Sustainability Report 2021.

Key performance indicators

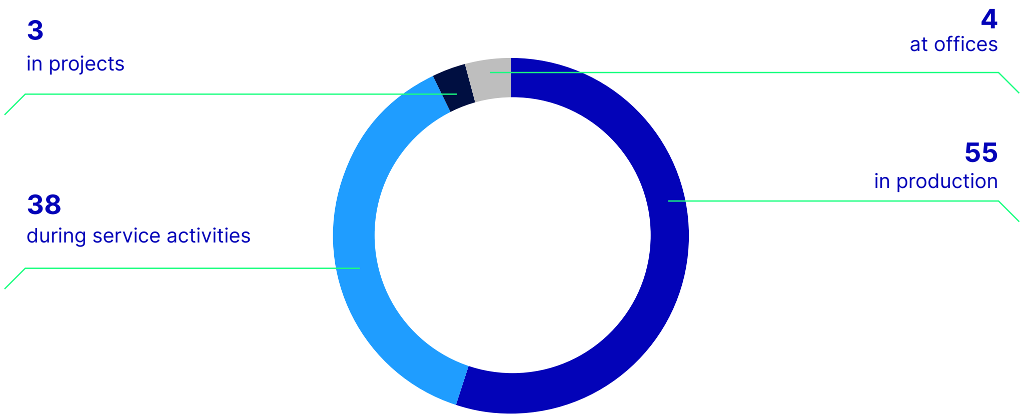
Work safety numbers[1] Per million hours worked	2021	2020[2]	2019
Lost Time Injuries[3]	205	221	230
Accidents with sequence of death	0	1	0
Lost Time[4]	5,111	4,653	5,169
Lost Time Injury Frequency Rate[5]	5.15	5.44	5.63
Lost Time Injury Severity Rate[6]	128	114.56	126.63
Proactive Incident Rate[7]	264	92.05	128.96
Total Recordable Injury Frequency Rate[8]	29.16	32.23	33.39
Sites without occupational accidents with downtime, in percentage of all sites	76	73	76

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 2020 numbers have been adjusted as two accidents have been additionally reported for 2020
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

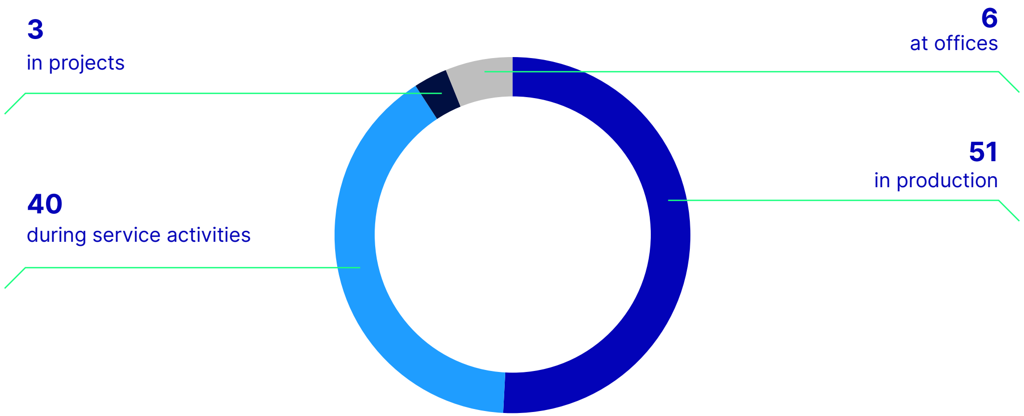
Lost time injury frequency rate

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

People increasingly want to know about the working conditions and environmental impact involved in obtaining raw materials and the manufacture and sale of products. Critical investors, customers 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.

At GEA, the cost of materials amounts to around half of group revenue. This indicates the important role procurement plays in profitability. At the same time, the importance of materials procurement reveals the extent of the company's ability to influence ethical and environmental issues in the supply chain. By initiating the transformation process, GEA intends to make greater use of this influence to make its supply chain more sustainable.

GEA developed a new climate strategy in the year under review. The climate targets included in this strategy demonstrate the company's firm commitment to reducing its own greenhouse gas emissions to net zero at all points of its value chain by 2040. Supply chain emissions (upstream Scope 3 emissions) are to be reduced by 18 percent by 2030. 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, the company defines and takes greater account of sustainability criteria in the selection, evaluation and development of its suppliers. GEA's sustainable supply chain management contributes in particular to SDG 8 "Decent work and economic growth" and SDG 12 "Responsible consumption and production."

A deep understanding of the key procurement mega trends is required to reach the targets set in GEA's climate strategy. Global supply chains are becoming increasingly exposed to unforeseen events and supply chain interruptions can lead to losses for GEA, as for all companies. Furthermore, there is growing demand from consumers, governments and other stakeholder groups for product traceability and transparent reporting along the entire supply chain. In light of this, GEA aims to focus its resources and exert influence where it matters most for the company and its stakeholders.

For products manufactured in-house, GEA purchases raw materials, semi-finished products, precursors and, notably, components not based on the company's core technologies from external suppliers. 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.

Supply chain management

Supply chain management involves major challenges, particularly given the Covid-19 pandemic. The most pressing problems include the highly volatile air and sea freight logistics markets as well as acute materials shortages. The fact that GEA made significant efforts to enhance sustainability and reduce the climate impact of its supply chains despite these challenges in the reporting year underscores the high priority of this topic for the company.

GEA established the procurement, production and supply chain function in 2020 and appointed a global Executive Board member with responsibility for this area for the first time. The Executive Board also introduced a new global procurement and supply chain organization in 2020, which is tasked with ensuring a clear allocation of responsibilities and interfaces. The new organization replaces the three formerly independent purchasing units with a single centralized entity. In addition to providing a template for designing the supply chains for each of the five divisions, this approach also ensures consistent monitoring and full accountability.

Although the new procurement and supply chain organization has enhanced the overall view of GEA's supply chain, the local legal entities remain largely autonomous. The appointment of a person with responsibility for the global supply chain represented a major step toward the further standardization of global supply chain processes in the year under review. This step enables GEA to align this area with its group-wide sustainability strategy, putting it on the path to achieving the targets set in "Mission 26" and the GEA Climate Strategy 2040. GEA's transportation activities are the third largest contributor group's greenhouse gas emissions (upstream, see also the section "Environmental protection" under Scope 3.4).

Since the year under review, supply chain management has operated 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 700 employees held supply chain-related jobs in 2021. 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 several sites. All supply chain management tasks can be divided into the following categories: planning & scheduling, materials management, warehousing & distribution, transport & customs processing and the “Supply Chain Excellence – Analytics & Projects” department.

Of around 4.7 billion euros in sales, just under 2.7 billion euros is spent on procurement. Procurement 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.

Sustainable procurement

Sustainability involves much more than just sustainable products and services. Compliance with basic standards regarding social matters and environmental protection along the entire value chain is the only way to secure the trust required for long-term business relationships. As a technology company with a high degree of materials expertise, GEA is aware of its responsibility and purchases its raw materials, goods and services worldwide exclusively from qualified suppliers.

As part of its “Mission 26” strategy, GEA set ambitious targets in 2021 for monitoring the sustainability of its supply chains. For example, all preferred suppliers – suppliers that satisfy GEA’s criteria in terms of price, quality, cooperation and global/regional presence – should meet GEA’s sustainability criteria in full by 2026. To achieve this ambitious goal, the Sustainable Procurement unit was specifically created and will define and publish GEA’s sustainability criteria in 2022. These criteria will significantly exceed the requirements of the Lieferkettensorgfaltspflichtengesetz (LkSG – German Supply Chain Due Diligence Act), which enters into force in 2023.

Today, all preferred suppliers and all suppliers entering into a framework contract with GEA are required to sign GEA’s Code of Conduct for Suppliers and Subcontractors, which was revised in 2020. This code includes the fundamental obligation to engage in environmentally sound business practices, respect human rights and to avoid trade in conflict resources. Major suppliers of the individual local purchasing companies are visited annually and regularly undergo an environmental assessment.

GEA has also launched strategic sustainability initiatives with a number of global suppliers. These providers include an automobile manufacturer that provides electric vehicles for GEA’s company car fleet in Germany on a pilot project basis. Over the medium term, GEA aims to successively change its global fleet of some 4,300 company cars over to all-electric vehicles wherever possible. In addition, a company guideline on the promotion of green mobility was introduced in the year under review. This specifies that all new vehicles for GEA’s senior executives in Germany must be 100 percent electric. The company will therefore also invest in charging stations at GEA sites.

Employee awareness of climate protection and sustainability in the supply chain will also be raised. In connection with this, department heads will be required to become more knowledgeable about sustainability in areas such as reducing carbon emissions and learn how to implement such measures in their business area. There is also an internal digital platform covering various topics, including sustainability. Employees can use this platform to put forward their ideas on issues such as how to reduce emissions in the supply chain. Following the 2021 UN Climate Change Conference in Glasgow, a group-wide “GEA climate week” took place. During this week, employees discussed ways to make professional and private life more climate friendly.

Local procurement

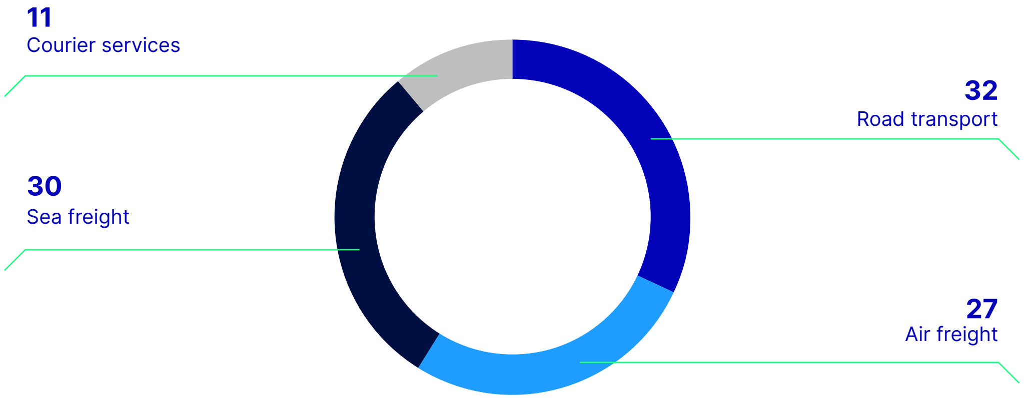
Wherever possible, GEA applies the “local for local” principle in the procurement organization. This shortens supply routes, making them more sustainable while at the same time enabling GEA to indirectly support the local economies in the vicinity of its sites. Our policy of responsible resource extraction and the use of sustainably produced precursors enable GEA to avert raw material risks and ensure a reliable flow of goods from our suppliers. GEA firmly believes that responsible procurement can enhance its reputation, its appeal as an employer and, ultimately, sharpen its competitive edge. Special importance is placed on ensuring that human rights are respected in the supply chain.

Logistics

Given the “local for local” principle, it is clear that transport and logistics expenditure only accounts for a small proportion of the GEA’s overall procurement volume. The introduction of the new climate strategy and “Mission 26” aim to further reduce transportation to continuously move the company’s carbon footprint toward zero.

Distribution of transport volumes between different means of transportation:

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. In 2020, an air freight guideline was implemented, which specifies that the divisions must use a tool to have their air freight shipments approved. As a rule, more shipments should be transported by sea rather than air freight due to its better greenhouse gas emissions performance. The corresponding reporting system was also introduced in 2021. All tenders for new suppliers now include the condition that the supplier must provide transport data. GEA has been able to calculate greenhouse gas emissions of each air freight shipment since October 2021. This will be reported on starting in 2022.

Human rights

GEA explicitly requires its business partners to apply specific values and rules in all material respects. To ensure compliance with these values and the rules of corporate social responsibility along the entire value chain, GEA has adopted the Code of Conduct for Suppliers and Subcontractors. All purchases (direct and indirect expenses) are covered by this Code of Conduct. Suppliers must accept the Code of Conduct in order 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 long-term contracts.

GEA practices a zero-tolerance policy with regard to unethical business conduct, in particular bribery, corruption, money laundering, and child and forced labor. These 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.

Key suppliers are to be audited regularly with regard to respect for human rights. GEA also evaluates suppliers on the basis of self-declarations. If there are breaches found or suspected of this guideline on human rights or the Code of Conduct for Suppliers and Subcontractors, GEA requires that corrective measures are implemented to ensure better adherence to the standards in the future. GEA requires that suppliers investigate and rectify any non-compliance issues within a reasonable period. If the supplier is not prepared to resolve identified issues, this will result in termination of the business relationship.

In the year under review, the company conducted a total of 165 supplier audits (previous year: 269). Of these, 23 new suppliers were audited (previous year: 73). GEA performs these evaluations by means of supplier visits, audits and self-declarations, which are undertaken by the Category Management of the purchasing organizations, country organizations and the divisions.

Suppliers in countries carrying risks for human rights

The risk analysis process designed to counter human rights risks also includes a procedure for suppliers and contractors. Although GEA in general seeks to ensure full compliance with the Code of Conduct for Suppliers and Subcontractors, the human rights situation in some countries calls for special attention. Based on a multi-index approach, GEA currently rates 28 countries with existing purchasing volumes as critical. For this purpose, GEA combines the assessments of four well-known indices:

- “Freedom in the World”, published by Freedom House, an American non-governmental organization
- “Index of Economic Freedom”, published by the Heritage Foundation and The Wall Street Journal
- “Press Freedom Index”, published by Reporters Without Borders
- “Democracy Index”, published by the Economist Intelligence Unit (EIU), a private company based in the UK

In its assessment, GEA also takes into account the OECD membership of the countries with the lowest score in at least one of the four indices. In terms of value, GEA sources approximately nine percent of its total purchasing volume from countries with human rights priority. All suppliers and subcontractors that account for this critical volume have accepted the Code of Conduct, which is part of a GEA order confirmation.

Conflict minerals

Minerals and metals play an essential role in today’s economies, as they are required in the manufacturing of many products and components. However, mining, trading and transporting metals and minerals can have a considerable negative impact. Tin, tungsten, tantalum, and gold – known as the 3TGs or “conflict minerals” – are particularly relevant since in the past armed conflicts and the associated human rights violations were directly or directly financed through the mining, trading, use and export of these minerals.

GEA itself only uses very limited quantities of conflict minerals. In 2020, under the Code of Conduct for Suppliers and Subcontractors, the company 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. In addition, GEA has committed to the “OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas”. This policy is in line with 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 the year under review, GEA introduced its own guideline on conflict minerals for the first time, which is aligned with the OECD guidance. In addition, the company launched a due diligence process in accordance with the OECD due diligence guidance requiring the 71 largest suppliers in terms of revenues to disclose the source of their conflict minerals using the recognized Conflict Minerals Reporting Template (CMRT) (see also chapter “Compliance & Corporate Governance”). These suppliers are in turn required to do the same with their suppliers to ensure full transparency along the entire supply chain.

Quantifying impacts in the supply chain

In 2020, GEA conducted its first analysis of the sustainability impacts along the group's entire supply chain. The analysis also takes account of the greenhouse gas emissions, air pollution, water consumption and waste generated by GEA suppliers and upstream suppliers, as well as workdays lost due to occupational injury and illness. From this analysis, GEA is able to identify the hotspots of selected sustainability risks in the supply chain and minimize or eliminate them in cooperation with suppliers. The impacts indirectly attributable to GEA were calculated with the help of an established macroeconomic model (PwC ESCHER) based on GEA's purchasing volumes broken down by purchasing sectors and regions. Fiscal year 2021 served as the reference period for the data collection.

The quantification of greenhouse gas emissions from the purchase and transport of commodities, services and capital goods reveals that these are greater than the greenhouse gas emissions from the company's own business activities by a factor of 25 (Scope1) as well as emissions from the use of purchased energy (Scope 2).

Analysis of water consumption and waste generation along the value chain reveals a similar pattern of sustainability impacts. Again, the supply chain impacts identified exceed those of the company's own business activities. The most significant drivers of waste generation and water consumption along the supply chain are the extraction of fossil fuels for electricity generation as well as the manufacturing of machinery and accessories used in GEA's production activities.

Further information on "Supply Chain" can be found in the GEA Sustainability Report 2021.

Employees

A company is only as good as its employees. GEA's performance relies on the skills and dedication of more than 18,000 employees*, 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.

To take proper account of the significance of the human factor for GEA, in the reporting period, the Human Resources (HR) department also continued its transformation process, which had begun in the previous year. The organization of the HR department has been harmonized with GEA's divisional and regional structure to optimize human resource management and ensure that it is based on uniform principles. Human resource management was previously organized on a regional basis.

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. GEA therefore also sets measurable human resources targets as part of the group's "Mission 26" strategy. Among other goals, some 80 percent of employees should agree with the statement that they would recommend GEA as a good employer by 2026. Advances are also being made in the area of gender equality: 21 percent of positions at the top three management levels are to be filled by women in the next five years (2021: 17 percent). GEA remains committed to respecting human rights as well as the generally accepted core working standards of the International Labour Organisation.

All of these measures have one overarching objective: further enhancing GEA's employer brand and solidifying 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 increased its support of individual training and professional development opportunities for employees as well as the attainment of personal career goals within the company in 2021. In addition, in cooperation with all parties involved, GEA creates a working environment where health and safety at work is paramount.

*) As of reporting date; total employee capacities (FTE) excluding trainees and inactive employment contracts; excluding non-consolidated units; all key figures calculated with the same population

Human resource management

Human Resources (HR) is part of GEA's Global Corporate Center, reporting directly to the CEO, who is also the Chief Human Resources Officer.

In September 2020, GEA fundamentally reorganized its HR structure. The purpose of this transformation is to underscore the strategic relevance of human resource management to GEA's future viability. HR and the HR Business Partner Organization are thus 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 and Kuala Lumpur site provide support in the form of timely HR services. And the "Centers of Expertise" – including "Labor Relations/Labor Law", "People & Talent Development" and "Total Rewards & Mobility" – devise modern concepts to establish GEA as an "employer of choice" over the long term.

Employment

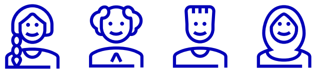
The fierce competition for talents already experienced for many years and the impact of demographic change on the labor market mean that significant efforts are required to find diverse and qualified employees. Ensuring long-term loyalty to the company among employees is also an important task for HR 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, the company also provides further support to employees to undertake targeted training as well as to achieve their medium- and long-term career goals.

GEA began reporting on new hires and employee turnover in fiscal year 2019. In 2021, GEA hired a total of 2,080 new employees, compared with 1,242 in the previous year. The total number of new hires as a percentage of the average headcount last year rose from 6.5 percent to 11.1 percent as of December 31, 2021.

Diversity, inclusion and equal opportunities

The team diversity approach is not only applied within the HR function at GEA, it is a common thread that runs through the entire 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.

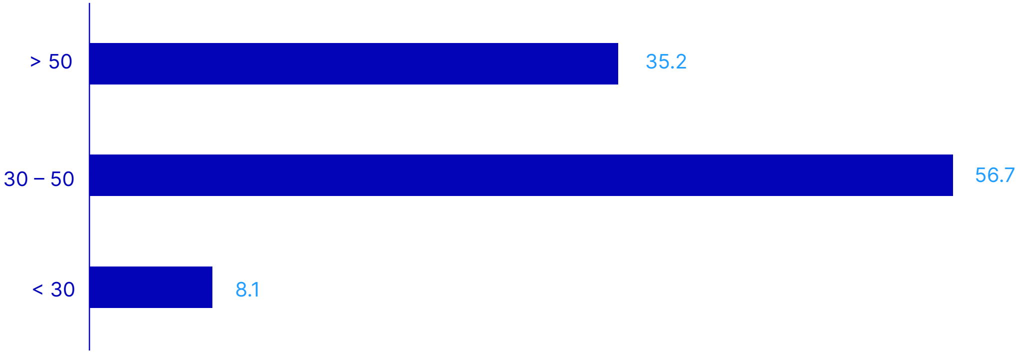
98 

nations are represented at GEA

All in all, GEA employs people from 98 different nations. The age structure of GEA's workforce is as follows: 8.1 percent of employees are younger than 30, 56.7 percent are aged between 30 and 50 and 35.2 percent are older than 50 (see graphic).

Employees by age groups*

(in %)



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

GEA believes that employee diversity is achieved through shared understanding and actions based on common values. For this reason, the company aims to not solely center the discussion around quotas or recruitment, but to also ensure that it addresses conduct and values. The group-wide “Diversity & Inclusion Policy & Guideline” adopted in 2021 provides the framework for this. This document describes the overarching goal of diversity management at GEA. For example, diversity criteria are taken into account as standard when filling positions.

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, 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 employees and management at GEA are characterized by long-standing, respectful dialogue and interaction with employee representatives as well as parity co-determination on the company's Supervisory Board. One half of the Supervisory Board 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.

At the European level, GEA has a European Works Council (EWC), which has the statutory 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 the EWC and GEA's Executive Board with the assistance of the global trade union federation IndustriALL.

Collective bargaining agreements apply to 46 percent (2020: around 50 percent) of the workforce worldwide. These figures are based on data from the global human resource management system "Workday". All other employees have individual contracts.

Leadership development

To prepare senior executives for the challenges arising from the new organizational structure and thus to support the company's transformation and business success, two established strategic leadership development programs were continued in the reporting period. One of these 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. The second program – "Making the Matrix Work" – was offered to senior executives who manage the matrix organization or work at interfaces. This program aims to help them develop the skills and expertise needed in a matrix organization.

In addition, GEA offers training for senior executives at the GEA learning centre, where they can select development sessions based on their individual learning requirements. Alongside a broad range of e-learning content, trainer-led webinars are available as well. In addition, all young talents and senior executives have access to the "GEA Leadership Toolbox". This includes a constantly growing collection of best practice examples, tried-and-tested management and leadership tools, together with coaching and a 360-degree feedback tool.

As part of the group's transformation process, the leadership offering for senior executives was expanded in 2021. Three new training courses were added to further the aim of establishing a uniform leadership style globally based on the "Signature for Leadership". In addition, senior executives were able to participate in the live online training "Boost your dialogue skills", which aims to enhance the quality of the feedback provided by leadership.

"Leadership Reviews" were also introduced 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 senior executives. 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 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 its intention to be a preferred employer. 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. The GEA learning center has been the central learning and development provider for employees worldwide since 2015, offering management, sales, service and project management training as well GEA product and user training courses. It also includes a comprehensive range of e-learning content on technical and business-related topics. The aim is to develop employees both personally and professionally.

The focus on training and education was intensified in fiscal year 2021. GEA generally supports and promotes all needs-based employee training measures required for the performance of relevant tasks. However, the findings of the employee survey indicated a need to further improve the career and development opportunities offered to employees. Based on these insights, steps were taken across the group and, among other measures, the "Perform & Grow" program was established. As part of this program, managers and employees discuss career expectations, identify the development needs of each employee together and translate this into individualized development programs.

The continuation of the Covid-19 pandemic in 2021 meant that the content and format of training had to be adapted to the specific circumstances. Training was mainly delivered in the form of trainer-led webinars. The successful use of digital technologies ensured a high degree of acceptance among participants. The impact of Covid-19 was also reflected in participant numbers. However, it should be noted that it was not possible to reflect all short-notice modifications of the training offering in the reporting.

In the year under review, 17,675 employees, equivalent to 97 percent of the workforce, made use of the learning and training opportunities: 631 employees attended face-to-face training, 1,392 participated in integrated training initiatives and 13,520 joined trainer-led webinars. A total of 74,810 e-learning seminars were held.

Apprenticeship in Germany

In fiscal year 2021, GEA trained 363 young people at 12 sites in 11 commercial and industrial/technical occupations, which fall into different specialty areas depending on the product portfolio of the individual GEA site. The Oelde site is the center for technical training, coordinating these activities in Germany. In addition, 15 combined apprenticeship and degree programs were organized in cooperation with polytechnics 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 has conducted an annual global employee survey since 2019. 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 evaluation of the answers provided. Since 2020, the survey has been conducted in collaboration with an external service provider in order to professionalize the process. To ensure the highest possible degree of comparability, the questions are standardized and always asked in the same form. This design permits the evaluation of parameters such as employees' acceptance of previously implemented measures.

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 senior executives receive training to help them respond to and implement the findings of the survey. This helps continuously improve GEA's employer branding.

The 2020 survey had a response rate of 74 percent, representing a 17 percent higher participation rate than the previous year. High approval scores were achieved in areas such as engagement, empowerment and flexible working. However, the findings revealed that employee communication and cross-departmental cooperation within the group could be improved.

In the reporting period, three areas of focus identified from the most recent employee survey were addressed: internal communication, individual employee development opportunities and strengthening internal cooperation. Based on other findings from the survey, GEA took actions such as enhancing HR management's role in developing action plans and making it easier for senior executives to access detailed survey results. A total of around 6,500 initiatives were launched in response to the feedback in 2021, leveraging the survey's findings to optimize existing processes and implement new ones.

The findings of the most recent employee survey again show clear improvements in the three focus areas: the score for pragmatic leadership rose by five percentage points compared with the previous year, while employee communication and individual development opportunities each climbed by six percentage points. At 81 percent, the participation rate again improved on the previous year, also up by seven percentage points. Of the twelve areas surveyed, sustainability was the highest rated. This is a positive development. Following the last survey, the improvement in employee communication and professional development and learning opportunities were identified as global priorities, which led to the implementation of numerous related measures in the year under review.

Work/life balance

GEA is committed to ensuring that the demands of family and working life on its employees remain balanced at all times. Employees can only achieve their full potential if they have a good work-life balance. GEA supports employees 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, pays tax-free allowances for places in daycare facilities.

In the year under review, employees experiencing particular challenges in achieving a work-life balance due to the birth of a child or the need to care for a dependent put together videos for senior executives, thus raising awareness of this issue. In addition, GEA cooperates 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.

Company pension schemes

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

Mobility

Despite the advanced degree of digitalization and the related opportunities, such as home working or video conferencing, GEA is reliant on employee mobility. However, keeping the carbon footprint of business travel as small as possible is a key concern for the company. GEA therefore launched various initiatives in the year under review. For example, a new company car directive for senior executives entered into force in Germany, which provides for the conversion of the fleet to all-electric vehicles in the near term. Similar directives were also considered in other countries in the year under review. In addition, employees have a greater incentive to travel to work by green means of transport, with GEA granting higher reimbursement for public transport passes, for example.

For necessary long-distance business travel, GEA works with a central travel booking service provider. To meet market requirements and safeguard the company's sustained long-term competitiveness, it is still 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.

Non-occupational health management

Health is the foundation for a happy and productive life. Only employees who are healthy and feel well can perform to their best. GEA's measures to promote health go above and beyond the legal requirements since investments in employee health and well-being are investments in the future.

Health management is decentralized at GEA and is the responsibility of the divisions and regions as well as the respective sites. The "GEA Care" health program, under which health management will be centralized in the future, was integrated in the group's "Mission 26" strategy in 2021. The aim is to optimize the local offerings that remain in place and create new global, digital offerings for the entire GEA workforce. The Group Works Council agreement on "GEA Care" was signed in the reporting period.

One aspect includes safeguarding against workplace accidents and hazards; while the other aspect focuses on general health, individual preparedness and prevention. 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 HR strategy. At the local level, 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.

In 2022, health management targets will be defined as part of the "GEA Care" policy, which is still to be established.

Navigating the Covid-19 pandemic

GEA continues to work intensively to fully protect its employees during the Covid-19 pandemic. As in the previous year, GEA's central crisis team and the local crisis teams for the different countries and sites continued to work on compliance with local laws and protection standards, as well as on protecting employees and ensuring that they have a safe working environment. In addition, a group-wide dashboard is available, which provides a global overview of significant developments at GEA. Information on current case numbers and their development, for example, is a core component of the weekly reporting and forms the basis for the decision to tighten or ease measures.

All positive cases of coronavirus at GEA are immediately reported and subsequently communicated to the central crisis team. Clear regulations (operational guidelines, pandemic plan and travel warnings) are in force regarding work and travel during the pandemic. The operational guidelines are aligned with the requirements of the Arbeitsschutzverordnung (German Occupational Health and Safety Regulation). In the course of 2021, it was possible to ease several protective measures under local responsibility in accordance with the legal provisions. Further measures were dynamically adjusted by the local crisis teams in line with the current infection rates.

GEA offered employees and their families vaccinations during the reporting period. Vaccinations were given to around 1,600 people at 16 German sites with the help of an external service provider. There were also internal vaccination programs at other GEA entities, for example in the USA and India. In other countries, GEA approached governments to advocate for priority vaccinations for GEA employees. The central procurement and distribution of hygiene products, such as face masks and disinfectant, continued in 2021.

GEA Aid Commission

GEA supports employees in need in many different ways. In a works agreement concluded with the Group Works Council, GEA has pledged to grant swift and unbureaucratic financial assistance to individuals in distress, for instance, in the event of an accident or sudden serious health event. Under such circumstances, affected employees and their families may turn to the GEA Aid Commission for help.

Further information on "Employees" can be found in the GEA Sustainability Report 2021.

Compliance and corporate governance

Compliance and governance

GEA is committed to responsible and sustainable corporate governance to prevent any potential damage to the company, its employees, business partners, shareholders or other stakeholders. In light of this, fairness, integrity and lawful conduct are a high priority. 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 relies on learning about serious violations of laws or internal guidelines at an early stage. GEA therefore values an open corporate culture and encourages its employees and external third parties to report any compliance risks to their existing contacts within the company in confidence.

In the reporting period, no significant fines for non-compliance with laws or regulations in the economic, environmental or social area were imposed on GEA.

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 the GEA Compliance Management System can be found in the "Corporate Governance Statement" in this Annual Report 2021, and on the corporate website gea.com.

To avoid the serious consequences of potential compliance breaches, GEA manages these risks by means of a Compliance Management System (CMS), which was updated in the year under review. This system is designed for the purposes of analysis, information and clarification, control, process definition and monitoring of 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 rolled out in the company. In addition, the Compliance Team ensures that the measures are implemented in the relevant legal entities.

The appropriateness and implementation of the CMS for the subareas of anti-corruption and antitrust law was audited in accordance with IDW PS 980 and certified in January 2019. A further audit was conducted by an external auditor in the year under review. The purpose of this effectiveness audit was to achieve the third and highest level of certification.

Audits were conducted in ten legal entities selected by the audit firm. These audits included interviews and sample checks. The findings were used to assess whether the global compliance measures are effectively implemented and applied in the legal entities. The results of the audit are expected in the first quarter of 2022.

In order to establish new compliance targets and review existing ones, a three-year plan was launched in 2019 for addressing critical issues. This was initially a static plan, but was converted into a rolling three-year plan in the year under review. Specifically, "rolling" means that the plan is extended by a further year each time one year comes to an end. In this way, issues that were not fully addressed in a given year can be rolled over to one of the following years, with the planning adjusted accordingly.

All kinds of information gathered in the course of a year are factored into the three-year plan. For instance, this may include the findings of risk assessments and internal audits, regulatory initiatives and feedback from the company or third parties. Planning is carried out at group level by the Compliance Team. The plan's content and implementation status are regularly reported to the Executive Board, Supervisory Board and the Audit Committee.

Compliance Handbook

A Code of Conduct and related compliance policies are in force group-wide. 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 and policies are grouped together in a Compliance Handbook, which is available to all employees worldwide in 18 different languages.

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

Integrity system and alternative reporting channels

GEA offers employees various means of reporting violations. A cornerstone of the reporting system is the use of a certified whistleblower system. Employees can use this electronic system to report compliance violations under their own name or anonymously. In the year under review, the extension of the whistleblower system to include reporting by telephone was prepared in cooperation with an external law firm, with completion scheduled for 2022.

The number of whistleblower reports increased in 2021. This is attributable to the fact that the CMS has been developed extensively since 2017. The rising number of reports should be viewed as very positive since a CMS also has the purpose of empowering employees to recognize and report violations. No material compliance risks were reported in 2021 and, accordingly, no related cases were recorded.

Many reports are also received directly by the Compliance Team, as well as by the Executive Board and the management of the divisions and legal entities. GEA's Integrity System also allows for reports on potential human rights violations (category: violation of the Code of Conduct - Principle of social responsibility) to be filed.

Preventive processes

Processes designed to prevent compliance violations play a major role in GEA's compliance management system. For this reason, external parties in close contact with customers, such as sales agents, must undergo a strict risk vetting process for anti-corruption purposes prior to entering into a contract with GEA. Each sales agent contract must be reviewed and approved by the Compliance Team. The extension of the audit for sales consultants to other business partners in the purchasing area is currently being coordinated.

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

Training and consulting

In 2021, more than 9,000 employees were identified as being relevant to the area of compliance. This group includes all managers, sales and purchasing staff and all other employees with decision-making powers and direct contact with customers or suppliers. They receive regular training on compliance issues as part of a training plan. It is planned that compliance-relevant employees will receive training each year alternately in person and via e-learning. The following compliance training was provided in 2021:

- Compliance training courses comprise extensive group training in topics such as anti-corruption and anti-money laundering, antitrust law as well as conflicts of interest. In 2021, a total of 9,271 employees received compliance training via e-learning and 8,459 employees attended courses in person.
- In the area of data protection, 14,174 employees participated in e-learning and 1,576 employees received in-person training during the year.

Alongside training courses and e-learning, GEA used other communication measures to raise employee awareness of compliant conduct in the reporting period. In the “Stephan Petri asks” video concept, GEA Chief Compliance Officer Dr. Stephan Petri discusses key compliance topics with other senior executives to help explain these issues to employees. These video compliance talks are regularly made available on the intranet. In addition, the “Laurel Smith” comic was launched. This tells the story of a fictional new GEA employee who encounters different compliance and data protection issues. Employees can readily identify with the story, which prompts them to consider and comment on complex themes.

Audits

As part of its standard and special audits, Group Internal Audit also checks certain aspects of compliance. In the year under review, a total of 40 audits were performed – in some cases remotely due to Covid – at GEA entities worldwide. Of these, a total of 23 audits were completed by the beginning of December 2021 with the publication of a final report. The tasks of Group Internal Audit include safeguarding assets, auditing the efficiency and regularity of processes, and the completeness of documents. This also includes compliance audits in the fields of anti-corruption and export control. Internal Audit also performed additional audits focusing on the risk management system in the GEA group in 2021. As the third line in the three lines model of corporate governance, the role of Group Internal Audit is to assess and evaluate the GEA group and its companies with regard to compliance (including adherence to laws and binding internal regulations) and security (particularly the effectiveness of internal controls), as well as appropriateness (of the operational and organizational structure with regard to the fulfilment of tasks to achieve the corporate goals) and economic viability (cost-effectiveness and profitability). Where appropriate, it also agrees appropriate measures to eliminate weaknesses and/or reduce risks with the relevant audited unit and ensures their timely implementation (follow-up management).

A group-wide review of all existing contracts with business advisors in respect of GEA’s compliance rules, which began more than two years earlier, was also completed in the reporting period. The business advisors are external parties who work for GEA on a commission basis and are not employees. All contracts were reviewed and assessed with regard to risk criteria using a third-party tool over a two-year period. If the findings of the review were positive, a new contract with updated compliance requirements was drawn up. The contractual relationships with around 468 of the previously more than 766 business advisors were continued.

As part of a compliance risk assessment, annual compliance risk analyses have been carried out at the legal entities since 2020 and were therefore also performed in the reporting period. For these analyses, personal interviews were conducted with individual, randomly selected legal entities. Using an IT tool purchased for this purpose, the statements made were analyzed and documented, and the compliance risks assessed. Self-assessments were carried out at all legal entities where interviews were 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 of the approximately 200 operational legal entities were audited. Interviews were conducted at 34 of them.

Procedure for handling compliance violations

Violations of group-wide compliance rules result in sanctions that are adjusted according to the degree of fault and severity. They range from a reprimand to a warning letter to, ultimately, termination 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.

In principle, 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 2021, 20 compliance investigations were carried out. The investigations identified some violations of compliance guidelines, which were penalized with appropriate measures implemented by Compliance Committees convened for each individual case. GEA is not aware of any sanctions imposed against GEA for violations of anti-corruption or anti-money laundering requirements, antitrust law or data protection in the reporting period.

Protection of personal data

For a global, innovative enterprise like GEA, information and its use are of significant importance in achieving corporate goals. Protecting the privacy of every individual whose personal data it processes is equally important to GEA. 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.

GEA's data protection measures were successfully audited in accordance with the IDW PS 980 audit standard. A review of the appropriateness of the data protection management system by an independent auditor, which began in 2020, was successfully concluded in the year under review. Another key strategic theme in 2021 was the strategic cooperation with Procurement, IT, Business Process Management and Information Security. This began in the year under review and will continue in 2022.

The EU General Data Protection Regulation (GDPR) and the 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 four percent of group revenue and could lead to exclusion from public contracts. Furthermore, data protection violations could damage GEA's reputation over the long term. The company 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, which was introduced in 2019, sets forth guidelines and conduct recommendations for all GEA employees with a view to avoiding data privacy incidents and violations. It 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 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 year under review, the data protection management system was newly integrated into the "Service Now" digital workflow platform, which is used to for processes such as incident management. If an employee submits an incident report via "Service Now", a corresponding data protection review process is automatically initiated. Should this review result in the identification of a data protection breach, a review is carried on whether the violation is subject to reporting duty.

In the year under review, GEA recorded a sharp increase in the number of reports and requests for advice, sometimes receiving several in one 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 monitoring has improved.

Compliance with data protection requirements and the applicable data protection laws is reviewed on a regular basis. These reviews are performed by the company's data protection officers and other business units with audit rights, or by external auditors. Third-party suppliers are reviewed by means of self-declarations, audits and certifications. By December 31, 2021, more than 3,000 relationships with suppliers and subcontractors had been reviewed with regard to data protection compliance. More than 350 suppliers and subcontractors had their contracts amended to ensure compliance with the GDPR.

GEA also has a Group Data Protection Officer who coordinates and supports data protection initiatives across the group as a whole. They also report directly to the Executive Board, as well as the Supervisory Board and Audit Committee.

Information Security, Business Continuity and Crisis Management

To a large extent, the company's success over the coming years will depend on information security (InfoSec). This is particularly true in light of the increasing interconnectivity of GEA systems and the crucial importance of information for the business of the company. InfoSec is one of GEA's key strategic priorities. Value creation processes are structured and optimized in such a way that secure information handling is guaranteed. GEA is continuously improving its security measures. The current Global Security Program was launched in September 2020 to further strengthen the company's overall information and cyber security.

The aim of these efforts is to protect commercially sensitive 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 guarantees that information is reliable and accurate. Availability refers to the ability of authorized persons to access data, objects and resources promptly and without interruption.

The protection of information is governed by the GEA Information Security Policy and the underlying policies, procedures and implementation documents.

The Information Security Management System (ISMS) allows GEA to counter the ever-increasing number of security threats by using methods to protect sensitive information of all kinds against theft, loss, unauthorized disclosure, illegal access, misuse, amendment and destruction. Two lines of defense within the ISMS protect against material security risks. The first line consists of seven focal points and combats risks and threats where they arise:

- IT Security – protection of information held on the company's IT networks and systems
- OT Security (protection) – protection of information held on production and engineering networks and systems
- Product Security – protection of digital products and customer information
- Digital Media Security – protection of information held in GEA's online presence, including social media
- Physical Security – protection of information held at sites, in buildings and offices
- Supplier Security – protection of information during procurement and in the supply chain
- HR Security – protection of employee expertise, the proper use of information and prevention of insider threats

The implementation of the ISMS also depends on GEA employees. Mandatory information security training courses are held to ensure close involvement and familiarization with the measures. In addition, a global communication campaign creates more awareness and sensitivity for the topic of information security. A series of explanatory videos picks up on content from the ISMS guidelines such as e-mail fraud or correct visitor management. The videos not only serve prevention purposes, but also provide information on what to do in the event of an incident in order to rectify problems as quickly as possible and avert damage.

The second line of defense is the Chief Information Security Officer (CISO). He is responsible for management duties in connection with InfoSec as well as business continuity and crisis management. The CISO regularly reports to the Executive Board and the Supervisory Board's Audit Committee.

During the Covid-19 pandemic, the total number of so-called cyber attacks increased significantly. For this reason, more and more government institutions, authorities and companies are demanding market-specific certifications from their suppliers in addition to the ISO 27001 standard. These are intended to demonstrate that the risks of common cyber threats to IT systems can be minimized and threats successfully averted. In the year under review, for example, the processes for maintaining information security for GEA Mechanical Equipment UK Limited were verified by the Cyber Essentials certification supported by the British government. The certificate shows customers that a company can adequately protect its own data and that of others. The UK Cyber Essentials certification is relevant across all industries, but is particularly relevant to the marine industry, which has strong links with the UK Navy's purchasing organizations.

The Executive Board, the Chief Compliance Officer or the CISO can request information security investigations in case of an incident. Beneath the level of the global ISMS, all managing directors are responsible for maintaining an appropriate information security management system for their respective entity. No complaints about infringement of protection or loss of customer data were identified at GEA in 2021.

Further information on “Compliance & Corporate Governance” can be found in the GEA Sustainability Report 2021.

Disclosures on the European Union Taxonomy Regulation

Background and objectives of the Regulation

The Green Deal has the goal of making Europe climate-neutral by 2050. The European Commission developed the Sustainable Finance Action Plan to ensure economic alignment with and the financing of this goal. The EU Taxonomy Regulation is one of the measures under this Action Plan and aims to promote investments in sustainable economic activities. It is a classification system that defines the economic activities that contribute to the achievement of the following six environmental objectives: (1) climate protection, (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 the ecosystem. For companies subject to the EU Taxonomy Regulation, three key figures have been defined: the share (in percent) of taxonomy-compliant and taxonomy-eligible economic activities in terms of sales, capital expenditure and operating expenses.

The EU Taxonomy Regulation is only applicable to GEA's economic activities to a certain extent, since the production of technologies, plants and machinery for the manufacture of beverages, food and pharmaceutical products is currently not included in the list of economic activities in the EU Taxonomy Regulation. GEA Group generates more than 80 percent of its revenue with the beverage, food and pharmaceutical industry, and precisely not from generating renewable energy or producing materials for the energy transition. Nevertheless, GEA's technologies and machines enable its customers in the food and pharmaceutical industries in particular to achieve their climate targets as well as to comply with increasingly stringent regulations regarding greenhouse gas emissions, water consumption and waste disposal. This is GEA's purpose, “engineering for a better world.”

First-time reporting for fiscal year 2021

Reporting under the EU Taxonomy Regulation has been prepared for the first time for fiscal year 2021 and covers the first two environmental objectives climate protection and climate change adaption, whereby GEA's economic activities are designed to meet the climate protection objective. The remaining environmental targets in accordance with the EU Taxonomy Regulation are expected to be reported on for the reporting period starting January 1, 2023.

GEA made use of the optional practical expedients for the first-time reporting period and reports on the KPIs only for taxonomy-eligible activities with the exception of capital expenditure in relation to the economic activity 6.5. These are already fulfilling the requirements for the substantial contribution (specific CO_2 emissions are below 50g CO_2/km) but were not separately reported as taxonomy-aligned due to the aggregated disclosure across all business activities using the practical expedients. They are included in the aggregated key performance indicators for taxonomy-eligible capital expenditure. In accordance with the practical expedients provided, the disclosures on key figures are aggregated, i.e. without differentiating between the relevant economic activities. In addition, prior-year figures are not disclosed.

Reporting principles

To identify taxonomy-eligible activities, a top-down analysis of all economic activities of GEA was first carried out by allocating them according to the European Union classification system of products and industries (NACE codes). The activities identified based on this analysis were then allocated to the activities listed in the EU Taxonomy Regulation and other delegated regulations. The results of the top-down analysis were then verified and supplemented by the GEA Business Unit and product managers using a bottom-up approach. Taxonomy-eligible activities are activities that are in principle deemed to be environmentally sustainable based on the list of economic activities described in the EU Taxonomy Regulation.

GEA is one of the largest suppliers of systems and components to the food, beverage and pharmaceutical industries worldwide. In the context of the EU Taxonomy, it is primarily active in the areas of manufacturing, energy, water supply, sewage, waste management and remediation and transportation. Capital expenditure (CapEx) and operating expenses (OpEx) are primarily attributable to the areas of transportation, construction and real estate activities. Based on the analysis, the following activities are classified as taxonomy-eligible at GEA:

Economic activity in the sense of the EU taxonomy	Description of economic activity according to EU taxonomy	Application of economic activity at GEA
3.1 Manufacture of renewable energy technologies	Manufacture of renewable energy technologies meaning energy from renewable non-fossil sources, namely wind, solar (solar thermal and solar photovoltaic) and geothermal energy, ambient energy, tide, wave and other ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas, and biogas	• Production of heat pumps and technologies for the production of biodiesel, bioethanol, • biogas, hydrogenated vegetable oil and biomass
3.5 Manufacture of energy efficiency equipment for buildings	Manufacture of energy efficiency equipment for buildings and their key components	• Production of cooling systems („chillers") for buildings (such as shopping malls, airports and production halls)
3.6 Manufacture of other low carbon technologies	Manufacture of technologies aimed at substantial GHG emission reductions in other sectors of the economy, whereby the GHG emissions are reduced compared to the best performing alternative technology available on the market	• Manufacture of technologies for the development and production of product alternatives to milk and meat -. e.g. plant-based, in the form of insect proteins, fermented proteins or in-vitro meat • Production of customized Sustainable Engineering Solutions („SEnS") that take a holistic approach to process technology changes to reduce greenhouse gas emissions. • Manufacturing electric ovens using electric heating rods instead of industry-standard direct gas burners • Production of freezing tunnels with a particularly energy-efficient pre-cooling section • Technologies for the production of active material, e.g. spray dryers for the production of cathode material as well as crystallization of active material for batteries
4.25 Production of heat/cool using waste heat	Construction and operation of facilities that produce heat/cool using waste heat	• Production of systems for recovering waste heat (e.g. mechanical vapor compressors)
5.1 Construction, extension and operation of water collection, treatment and supply systems	Construction, extension and operation of water collection, treatment and supply systems	• Production of centrifuges for the treatment of water (e.g. treatment of industrial waste water, oil water and bilge water)
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	• Production of technologies for the conversion of manure into biofertilizer
6.5 Transport by motorbikes, passenger cars and light commercial vehicles	Purchase, financing, renting, leasing and operation of vehicles	• Passenger car leasing
6.6 Freight transport services by road	Purchase, financing, leasing, rental and operation of vehicles designated for freight transport services by road	• Leasing of vehicles for road transport of goods
6.12 Retrofitting of sea and coastal freight and passenger water transport	Retrofit and upgrade of vessels designed and equipped for the transport of freight or passengers on sea or coastal waters, and of vessels required for port operations and auxiliary activities, such as tugboats, mooring vessels, pilot vessels, salvage vessels and ice-breakers	• Production of separators for saving fuel consumption in the shipping industry
7.3. Installation, maintenance and repair of energy efficiency equipment	Individual renovation measures consisting in installation, maintenance or repair of energy efficiency equipment.	• Installation of LED lamps, energy efficient windows, heating systems and ventilation systems
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
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 of digital measuring devices
7.6. Installation, maintenance and repair of renewable energy technologies	Installation, maintenance and repair of renewable energy technologies, on-site, if the technologies are installed on-site as technical building systems.	• Heat pump maintenance and repair
7.7. Acquisition and ownership of buildings	Buying real estate and exercising ownership of that real estate.	• Acquisition of a climate-neutral production plant in Koszalin, Poland

The data collection process is carried out at decentralized level by the Group companies. They collect relevant sales, capital expenditures and operating expenses for the taxonomy-eligible activities and report these to the Global Corporate Center in a predefined format. The consolidation of the data and determination of the key figures is carried out at central level.

Definition of key performance indicators (KPIs):

General definitions of the revenue, capital expenditures and operation expenses are provided in the EU Taxonomy Regulation.

	Definition acc. Annex I to Art. 8 EU Taxonomy Regulation
Revenue	Revenue according to IAS 1.82(a), i.e. Revenue according to IFRS 15 and IFRS 16 and, if applicable, other sales revenue.
Capital Expenditures	Additions to property, plant and equipment and intangible assets for the financial year before depreciation, amortization and any revaluations, including those arising from revaluations and impairment losses, for the financial year and excluding changes in fair value, additions to property, plant and equipment and intangible assets from business combinations and additions from leases (incl. right-of-use assets) Costs to be included are those accounted for on the basis of IAS 16, IAS 38, IAS 40, IAS 41 and IFRS 16.
Operating Expenses	Direct non-capitalized costs that relate to research and development, building refurbishment, short-term rental, maintenance and repair, and other direct expenses for the ongoing maintenance of property, plant and equipment. Also included are personnel development costs.

GEA accounts for associates and joint ventures using the equity method. GEA's share of the profit or loss of investments accounted for using the equity method is recognized in the income statement under other financial income and other financial expenses.

At GEA, these KPIs are calculated as follows:

Revenue

Revenue, as presented in the Income Statement in the Consolidated Financial Statements of GEA Group AG in this 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 the Group companies have identified as taxonomy-eligible.

Capital expenditure (CapEx)

The additions in the year presented in the "Additions" line in 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 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 corresponds to the proportion of the denominator that has been identified as taxonomy-eligible by the Group companies and that meets one of the following criteria:

- There is a connection between assets or processes to taxonomy-eligible economic activities.
- It relates to the purchase of products from taxonomy-eligible activities and individual measures that enable GEA to reduce carbon and other greenhouse gas emissions in in carrying out its economic activities (primarily investments in buildings and mobility), provided that these measures are implemented within the following 18 months from the reporting date.

There were no additions as a result of business combinations in the reporting year under review.

Capital expenditure in relation to economic activity 6.5 was, as stated above, already aimed at the substantial contribution in 2021, due to the strong deviation from taxonomy-eligible capital expenditure to capital expenditure actually fulfilling the requirements for taxonomy alignment.

By analogy to Art. 8 of the Taxonomy Regulation, GEA understands an investment plan as the expansion of taxonomy-aligned business activities or the development of taxonomy-eligible business activities towards taxonomy alignment. These are not reported under application of the practical expedients.

Operating Expenses (OpEx)

The denominator for the KPI is derived from direct, non-capitalized costs related to research and development less depreciation and amortization that cannot be directly allocated, building renovations, short-term leasing, maintenance and repairs and expenses for employee development.

The numerator corresponds to the proportion of the denominator that has been identified as taxonomy-eligible by the Group companies and meets one of the following criteria:

- There is a connection between assets or processes to taxonomy-eligible economic activities.
- It relates to the purchase of products from taxonomy-eligible activities and individual measures that enable GEA to reduce carbon and other greenhouse gas emissions in carrying out its economic activities as well as renovation measures of building, provided that these measures are implemented within 18 months from the reporting date.

Operation expenses in the context of investment plans to expand taxonomy-eligible economic activities is targeted at the achievement of taxonomy alignment and is therefore not reported under application of the practical expedients. By analogy to Art. 8 of the Taxonomy Regulation, GEA understands an investment plan as the expansion of taxonomy-aligned business activities or the development of taxonomy-eligible business activities towards taxonomy alignment.

Further information:

In the identification of taxonomy-eligible economic activities, GEA's products/projects/technologies are always allocated to just one taxonomy-eligible activity to avoid double counting. Furthermore, double counting has been eliminated by including only external sales in the numerator of the sales KPI if several divisions were involved in a taxonomy-eligible activity and there were consequently intercompany sales. Double counting was also prevented with regard to capital expenditures and operating expenses through the clear allocation of activities.

Where revenue, capital expenditures and operating expenses could not be fully allocated to a taxonomy-eligible activity, these expenses were allocated based on appropriate parameters or reasonable and transparent assumptions. Examples of appropriate parameters for capital expenditures and operating expenses include production output or machine hours. If such information is unavailable, an appropriate allocation is made based on alternative parameters such as future revenue.

On February 2, 2022, the European Commission has published the Draft Commission notice part 2 on the interpretation of certain legal provisions of the Disclosures Delegated Act under Article 8 of EU Taxonomy Regulation on the reporting of eligible economic activities and assets ("FAQ"). The FAQ thus serves for the interpretation of legal provisions of the Delegated Act to content and presentation ((EU) 2021/2178) in connection to Art. 8 of the Taxonomy Regulation. In the opinion of GEA, no changes for this year's reporting arise from the draft of this 2. FAQ document of the European Commission published on February 2, 2022.

KPIs under the EU Taxonomy:

Share in %	Revenue	CapEx	OpEx
Taxonomy-eligible	6.24	6.80	3.06
Not taxinomy-eligible	93.76	93.20	96.94
Total	**100**	**100**	**100**

The key figures presented in the table above relate to the legally required disclosures on the EU taxonomy's environmental goal of climate protection. Further information on sustainable solutions can be found in GEA's Sustainability Report 2021, published on the group's website gea.com.

REPORT ON OPPORTUNITIES AND RISKS

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.

In light of this development, the systematic and uniform identification, assessment, and management of opportunities and risks across the group represents 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 future 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 reward 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 given period in the future. The expected value of the reward or loss is determined by multiplying these two figures. The result is calculated to provide both gross and net values.

The gross value describes the maximum reward/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 net value of an opportunity/risk describes the potential for success / loss that arises if existing control measures take effect when an opportunity/risk occurs. It is calculated by subtracting (in the case of risks) or adding (in the case of opportunities) the evaluated control measure from or to the gross value, taking into account 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 or 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 the implemented 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 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 decreased compared with the previous year due to economic recovery. However, as all planning is subject to certain forecasting risks, flexible adaptation to a rapidly changing economic environment may prove necessary.

This is particularly applicable given the limited reliability of forecasts and forward-looking statements due to the impact of recently observed global shifts on procurement markets and further changes in sales markets as a result of the pandemic.

GEA's strategic orientation successfully proven itself in 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. The "Mission 26" strategy, which aims to accelerate profitable growth in the main sales markets, was unveiled at the Capital Markets Day in London. Accessing and utilizing these operational opportunities is a central pillar of GEA's business activities.

The structure of GEA with its regional and sectoral diversity continues to offer substantial protection against the clustering of individual risks into a single risk that could jeopardize the group's continued existence as a going concern. Furthermore, the group is not significantly dependent on individual business partners, whether suppliers or customers.

The risk-bearing capacity is defined as the maximum level of risk that GEA Group can bear over time without jeopardizing its own continued existence. The loss of a B rating is interpreted as a development that could jeopardize the company's continued existence and is simulated for the past fiscal years using the key indicators of equity ratio and return on assets. On the basis of the current risks, GEA Group has sufficient coverage potential to compensate for them, even in the event of a loss of an investment rating.

In its overall assessment of the group-wide risk landscape, the Executive Board does not currently see any sufficiently likely risks or risk combinations that could endanger the company's continued existence as a going concern.

Opportunity and risk management system

At GEA, the divisions run the operating business and have global responsibility for revenue and profitability. These five divisions are each organized into up to six 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 and their companies, 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 areas 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.

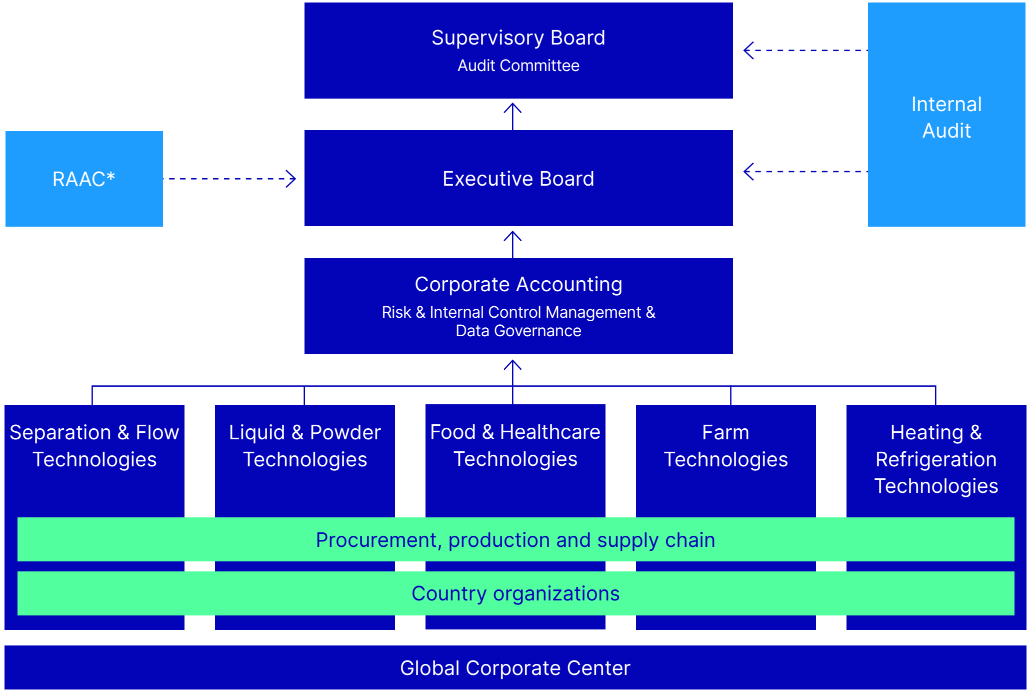
The principles, framework, organization and responsibilities for GEA's opportunity and risk management system are clearly defined and are based on the international COSO II model.

The main features 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 also monitors the functionality and effectiveness of corporate governance requirements within the group. The Supervisory Board and the Audit 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/framework concept), in compliance with regulatory requirements.
- The central Corporate Accounting unit, specifically the Risk & Internal Control Management & Data Governance (GRC) 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, coordinates regular management reporting, and is responsible for the preparation, dissemination, and further development of uniform group-wide methods, tools, and procedures for 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 these to the responsible units.
- Internal Audit is responsible for regularly reviewing the risk management system instituted by the Executive Board in accordance 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 (2) of the AktG to institute a monitoring system and whether the early risk detection 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:

- A group-wide guideline – the 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 opportunities and risks at an early stage. As a rule, opportunities and risks are assessed on the basis of a one-year period. This period corresponds to the rolling forecast horizon.
- 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. A financial impact on EBIT of EUR ≥ 0.25 million, without taking into account a minimum probability of occurrence or any risk mitigation measures, represents the lower reporting limit for opportunities and risks. This low reporting limit 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, without taking into account 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.

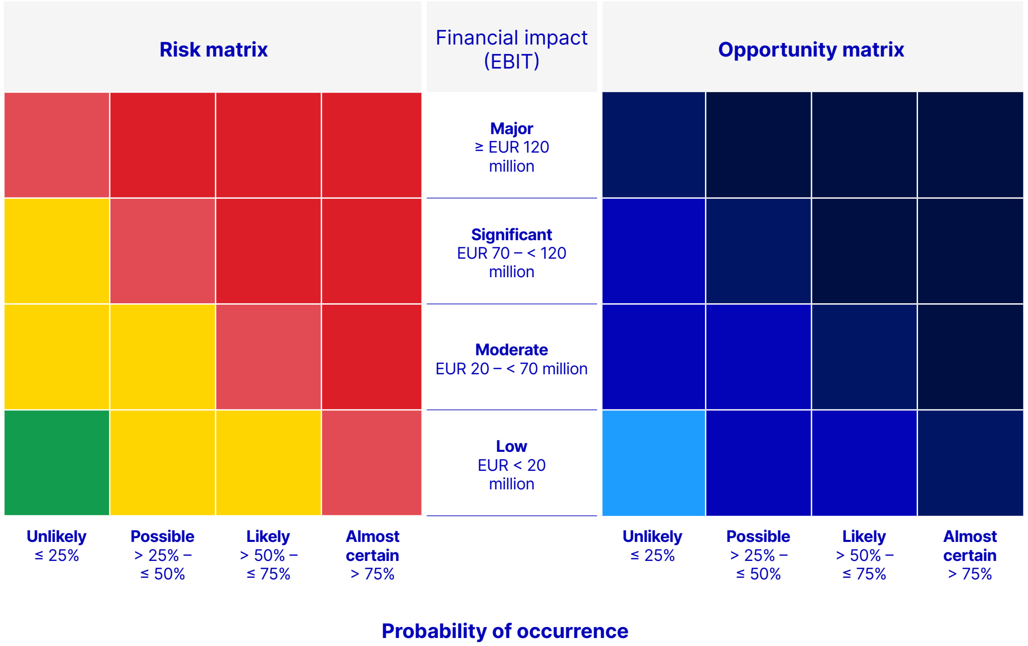
- The opportunity and risk management process is defined as a uniform group-wide control loop. It consists the following steps:
  - **Identification**: Continuous monitoring of the opportunity/risk situation with regard to recorded and unidentified opportunities and risks;
  - **Assessment**: Determination of the forecast reward or loss and probability of occurrence according to the net and gross 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 utilize 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 implemented opportunity and risk management process;
  - **Reporting**: Regular communication of relevant opportunity and risk information to the management committee of the operating and central business areas.

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 multiplier for 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 group's 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 in order 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. No agreement may be signed if the opportunity and risk profile is unsuitable.
- The identification, analysis and evaluation of opportunities and risks, 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 four categories for all organizational units within the GEA group on the basis of their average earnings contribution (EBIT) over the past three years. The following key figures apply to the GEA group:

Opportunities and risks and matrix (net basis)



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.

Internal control system

GEA has an internal control and risk management system (ICS) for the group accounting process. It is based on a comprehensive system of guidelines, instructions, organizational and procedural rules, business processes (including the assignment of responsibilities and supervision) to ensure the traceable implementation of and compliance with legal requirements and internal rules, the elements of which are intended to prevent procedural and organizational risks in financial reporting as well as in the directly or indirectly related business processes.

Various monitoring measures both within and outside of the accounting process contribute to the implemented controls ensuring that the consolidated financial statements comply with the relevant regulations, despite the potential risks. GEA's ICS for financial reporting encompasses all principles, measures and rules that ensure the proper approval and recording of business transactions for monthly, quarterly and annual financial statements. The goal of the implemented ICS is to ensure reliable financial reporting, compliance with the relevant laws and standards, and the cost-effectiveness of business workflows. In addition to GEA Group Aktiengesellschaft, all group companies are integrated into the ICS.

In order to ensure that uniform procedures are established throughout the group, the following key principles of GEA's ICS must be applied in all business functions: 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 (handbooks), the obligation to obtain comparable offers before awarding contracts above a defined size, protection of data from unauthorized access, and the provision of training sessions.

Key measures and rules that are relevant for financial reporting and are designed to ensure uniform accounting at all subsidiaries are: accounting and account allocation manuals, a uniform chart of accounts, consolidation and calculation manuals, the approval of entries using the dual control principle, and the restricted authorization of certain entries to selected persons only. Guidelines and IT systems are updated on a continuous basis to reflect legal and business requirements. The Chief Information Security Officer (CISO) is responsible for ensuring the implementation of appropriate IT guidelines throughout the group based on regulatory and substantive requirements.

Compliance with the principles, measures, and rules set out in the ICS as described above is monitored systematically; this takes the form of regular reviews by GEA's Internal Audit function, which reports directly to the Executive Board and regularly submits reports to the Audit Committee. The results enable the elimination of defects identified at the companies reviewed and the ongoing enhancement of the ICS within the group.

Overall, the ICS aims to ensure 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.

Risks

Six 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	Risk value (net)
Legal and compliance risks		
Civil procedure U.S. - Steuben Foods Inc.	unlikely	significant
Civil procedure South Korea - Sesame W.S. Trading Corporation	likely	low
Civil procedure U.S. - Holcim	unlikely	significant
Compliance risks	possible	low
Financial risks		
Use of loss carryforwards	unlikely	major
Currency risks	unlikely	low
Interest rate risks	unlikely	low
Credit risks	unlikely	low
Liquidity risks	unlikely	low
Operational risks		
Procurement risks	possible	moderate
Production risks	likely	low
Sales risks	possible	moderate
Order risks	possible	moderate
IT infrastructure risks	unlikely	moderate
Information security risks	possible	moderate
Personnel risks	possible	moderate
Strategic risks		
Risks arising from trade restrictions	unlikely	low
Acquisition, divestment, and integration risks	likely	low
Risks arising from future megatrends	possible	moderate
Project risks		
Reduced project financing options for customers	unlikely	low
Margin risk for long-term contracts	possible	moderate
Sustainability-related risks		
Umwelt/ Soziales/ Unternehmensführung	possible	moderate

At GEA Group, opportunities and risks are systematically recorded, assessed, and categorized on a quarterly basis using audit-proof enterprise risk management (ERM) software and reported to the Executive Board and the Audit Committee as part of the ERM reporting processes.

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 necessary, in light of the relevant circumstances, risk provisions are recognized in case such proceedings result in an adverse outcome. However, the outcome of these proceedings cannot be predicted with any degree of certainty. Consequently, the proceedings may impact income or expenses if the amounts that have been set aside for them are higher or lower than required.

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.

The reporting for previous fiscal years specified risks arising from certain civil proceedings in the USA and South Korea. This concerned the three following cases:

(1) Steuben Foods Inc.

GEA Process Engineering, Inc. ("GPNA") and GEA Procomac SpA ("Procomac") are defendants in a lawsuit filed by Steuben Foods Inc. ("Steuben") pending at the U.S. District Court of the Western District of New York. In February 2021, the court decided in favor of GPNA and Procomac with regard to the scope and extent of the patents at issue and dismissed Steuben's complaint.

In its complaint, Steuben alleges that GPNA and Procomac infringed its patents by selling eight bottling lines to customers in the United States; Steuben seeks unspecified damages. Steuben has filed an appeal against the decision of the U.S. District Court with the U.S. Court of Appeals for the Federal Circuit. GPNA and Procomac consider that the decision of the U.S. District Court strengthens their position that there has been no infringement of any valid and enforceable patent claims and intend to continue to vigorously defend themselves against the claims made. Overall, the potential financial impact for this risk is classified as significant, but the probability of occurrence is assessed as unlikely.

(2) Farm Technologies distributor for South Korea

In an action brought before the District Court in Seoul, GEA Farm Technologies GmbH was sued by its former distributor in South Korea (Sesame W.S. Trading Corporation) and its owner Do Ki Yang for the alleged unlawful termination of a dealership agreement and payment of damages initially equivalent to around EUR 2.3 million, and finally equivalent to around EUR 28 million plus interest.

However, the High Court in Seoul (court of appeal) found that the losses incurred by the distributor amounted to the equivalent of only around EUR 670 thousand plus interest. At the end of November 2021, the Seoul Supreme Court upheld the judgment of the High Court and rejected the appeal; the judgment of the Seoul High Court is therefore final. Alongside this first action, the distributor brought a second action relating to the same matter but for a different time period, successively raising the claim for damages to EUR 19 million plus interest. GEA Farm Technologies GmbH expects that the principles confirmed by the Seoul Supreme Court will also be applicable to this second action. Overall, the probability of occurrence for this risk is assessed as probable, but the financial impact is rated as low.

(3) Holcim

On January 27, 2021, GEA Systems North America Inc. ("GSNA") was notified by its customer Holcim that the building housing an SCR exhaust gas cleaning plant for a cement factory of Holcim in Texas, USA, which was sold to Holcim by GSNA in 2015 and completed in 2016, structurally collapsed in December 2020. Holcim alleges a design defect in the plant and disclosed damages to date in the amount of approx. USD 44.5 million and could potentially increase to a total of USD 94.61 million.

Based on a preliminary root cause analysis, GSNA considers it probable that excessive temperatures negligently reached during operation of the plant by Holcim led to the collapse of the SCR building. GSNA intends to defend itself against any claim. Overall, the potential financial impact for this risk is considered as significant, but the probability of occurrence is assessed as low.

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, since 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 this risk is assessed as possible, but the financial impact is rated as low.

Financial risks

This category includes tax and financial risks, in particular.

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 were reviewed and evaluated regularly and systematically.

The applicable national tax rules may affect the use of 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, in Germany and abroad, there is considerable uncertainty regarding future changes to and the application of tax legislation due to both the pressure to institute tax reforms and a discernible increase in 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 risk. 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, powers and responsibilities. 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, 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.

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 business or financial transactions conducted by subsidiaries located in countries where foreign exchange restrictions exist is also coordinated with the central Treasury & Corporate Finance unit. GEA's 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 through the use of appropriate derivative instruments in order to neutralize the volatility arising from the hedged item (underlying) and the hedging transaction over their duration.

(2) Interest rate risks

Due to its 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 must be 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 volatility of the hedged items. Only the central Treasury & Corporate Finance unit is permitted to enter into such interest rate hedges.

(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 financial 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, foreign exchange transactions and other financial instruments). GEA assesses the likelihood of default before entering into a business relationship 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 and the default risk potentials classified as significant are allocated 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 deposited with banks and financial institutions rated BB- through AA- by Standard and Poor's (S&P) as of the reporting date. The maximum default risk is limited to the carrying amount of the financial instruments and the contract assets.

(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.

Operational risk

The category operational risk comprises risks related to procurement, production, sales, orders, IT infrastructure and information security, as well as personnel risks.

The operational risk presented below 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 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 precursor materials are purchased by the global procurement function to manufacture high-quality GEA Products by the operating business units. Purchase prices may fluctuate significantly depending on market conditions and impact the cost structure of GEA's products. In 2021, prices on the primary markets increased globally for products purchased by GEA (e.g. stainless steel and carbon steel, aluminum, certain chemicals, semi-conductors and logistics) 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. pumps, valves, electric drives). Furthermore, due to the limited availability of logistics services globally, GEA also observed price increases in this area.

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 procurement 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 frame 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 observe the markets all indicate that these markets will not become more settled until the end of 2022 or early 2023. In addition, increases are expected in indirect categories (e.g. energy, temporary employment, travel, logistics, packaging). Consequently, GEA anticipates further negative effects in 2022. The central team will continue to actively track the market in 2022, while the procurement function will continue to take measures countering rising prices alongside its planned cost savings activities. GEA Group is also latently affected by delays in the global supply chains for raw materials and other input materials.

As the procurement risks are partly limited or hedged through appropriate countermeasures, the occurrence of these risks for GEA is generally considered to be possible, while their potential financial impact is rated as moderate.

Production risks

The GEA group's production locations could experience operational interruptions or material damage due to the worsening of the local pandemic situation or other unfavorable circumstances and developments, which could compromise the fulfilment 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 function's extensive measures to minimize risk – the probability of occurrence is rated as likely, while the potential financial impact is rated as low.

Sales risks

GEA is generally exposed to the overall economic and political opportunities and risks in the countries and regions where the group operates. As a company that supplies process technology and components for various production processes, particularly in the food and beverage industries, GEA is exposed to economic and industry-specific risks.

The Covid-19 pandemic may continue to impact macroeconomic trends. Although GEA's early and consistent crisis management resulted in only a few production losses due to temporary site closures ordered by the authorities as well as a moderate decline in order intake and revenue in 2020, negative impacts on GEA's business activities over and above those already included in forecast considerations are considered possible. The consequence would be an additional negative impact on earnings.

Based on the diversified product and customer structure, the probability of occurrence is rated as possible and the potential financial impact as moderate, since the GEA group's performance is generally independent of regional crises on its main sales markets due to its worldwide presence.

Order risks

An economic downturn leading to a reduction in order intake and selling prices falling below the level of fiscal year 2020 could negatively impact earnings in the medium term due to capacity underutilization and capacity adjustment measures. GEA's differentiated product and customer structure, in addition to the group's flexible set-up, mitigate the impact of demand fluctuations in specific sub-markets on overall performance. In addition, the currently high order backlog could also have a mitigating effect on demand fluctuations over a certain time period. Overall, this risk's probability of occurrence is assessed as possible and its potential financial impact is rated moderate.

IT infrastructure risks

GEA's business processes are highly dependent on its IT infrastructure and business-critical IT systems. Whether caused by internal or external circumstances, the failure or malfunction of critical systems can give rise to risks relating to confidentiality, availability and integrity. Key business processes could be compromised as a result. Extensive infrastructure measures, such as the standardization and modernization of IT devices, cloud migration and the replacement of outdated network technology, have already been advanced in order 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. This risk is rated as unlikely, with moderate financial implications for GEA. Moreover, longer-term programs to create new, harmonized IT applications have been launched in the areas of ERP, distribution, logistics and engineering.

Since this transition is happening alongside the harmonization of business processes across the board, the renewal process will take several years. However, the different programs are designed in such a way that long-term advantages for GEA will begin to be realized at an early stage. As the core element, the global process and ERP system landscape has begun to be consolidated to create a new structural framework for data and business processes at GEA. Even more important than the system migration to SAP S4/Hana is the creation of harmonized structures and processes, as well as GEA's transformation into a process-oriented organization.

Information security risks

GEA protects the confidentiality, integrity, and availability of the information and information assets of its business partners as well as its own 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. The probability of this risk arising is assessed as possible, while the potential financial impact is rated as 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. Inter-disciplinary working groups at GEA develop innovative concepts to actively offset the effects of demographic change early. 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 and acquisition, divestment and integration risks, as well as risks associated with future megatrends.

Risks arising from trade restrictions

To date, GEA has only been affected by punitive tariffs to a small extent. The financial impact caused by global trade disputes is generally assessed as low. It is currently considered rather unlikely that GEA's major sales markets will suffer noticeable revenue declines as a result of trade disputes or economic sanctions.

However, the implementation of new Chinese export control regulations as of December 1, 2020, could still have a financial impact on GEA companies in the Chinese market and their employees.

It is currently not possible to determine the extent of this risk as the sanctions list has not been published and a number of legal terms have yet to be clearly defined.

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 integration concept 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 future 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 innovative 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 and existing competitors will bring products with better performance parameters to market 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. In addition, the further digitalization of internal processes at GEA is necessary to enable the efficient management of production and administrative processes. If these internal processes cannot be digitalized quickly and comprehensively enough, this may give rise to competitive disadvantages for GEA for a limited period.

The probability that GEA fails to promptly identify potential risks emanating from the emergence of megatrends affecting the social, political and economic landscape is rated as possible, while the potential financial impact is assessed as moderate.

Project risks

(1) 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, shifts in currency parities, or a credit squeeze 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 unlikely. The financial impact of this risk is classified as low, particularly thanks to GEA's diversified positioning.

(2) Margin risk for long-term contracts
Long-term orders for customer-specific projects are an important element of GEA's business. Some of these contracts entail particular risks, as they involve assuming a significant portion of the project's completion risk. The high percentage of innovative products in the GEA portfolio can also harbor technological risk. This is particularly the case with the complex solutions, plant 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 the 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 have been 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 to its public perception and can lead to non-financial risks and opportunities. Consequently, several sustainability-related risks are taken into account.

For example, GEA has used a global water risk map to track sites with water shortages since 2019. Water conservation measures are intensified in areas where the company determines production is affected by water scarcity.

GEA engages in active environmental management. As part of this engagement, GEA continuously invests in environmental protection and regular decontamination works and maintains a regular dialog with the relevant authorities to provide information on the countermeasures implemented 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 supports the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the associated revision to established reporting standards on the disclosure of climate-related information. The TCFD has been established by the Financial Stability Board to develop a uniform framework for reporting climate-related risks and opportunities. The focus is on disclosing financial risks that companies face from climate change.

In 2021, GEA reported on addressing climate change inter alia in response to the CDP Climate Change information request. Since the end of 2021, an inter-disciplinary working group is working to improve the process of identifying and assessing climate risks and opportunities and defining adequate management responses to mitigate risks and leverage opportunities in accordance with the TCFD recommendations.

The process of identifying and assessing potential medium- to long-term climate risks and opportunities is supported by the use of scenario analyses.

Additional environmental risks caused by historical contamination and mining damage on GEA land 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, in partnership with the insurer FM Global.

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 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.

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 "Opportunity and risk management targets" in this section). With this in mind, GEA is working on a fixed raft of measures aimed at transforming opportunities into real economic successes.

Accessing and utilizing operational opportunities is a central pillar of GEA's business activities. By making targeted investments in its operating business units, GEA utilizes the opportunity to systematically drive forward its future growth and strengthen its position in global growth markets over the long term. This is the focus of GEA's "Mission 26" strategy presented at the Capital Markets Day in London. Unlocking and realizing these anticipated operational opportunities should make a considerable contribution to achieving sustainable, profitable growth in the coming years. Selected measures under the "Mission 26" strategy are described below.

Forecasting the group's economic development is based on certain assumptions. A more positive than expected overall development of these parameters could have a correspondingly positive impact on GEA's financial position and results of operations.

As part of "Mission 26", GEA intends to expand its position in its key industries over the next five years and, at the same time, accelerate its profitable growth and improve its customer service with the help of certain levers. GEA already factored the impact of these measures into the medium-term group objectives up to 2026, which were announced on September 29, 2021 at the Capital Markets Day. In the multiple periods considered in "Mission 26", GEA rates the likelihood of occurrence as possible with major financial impacts.

Selected areas of “Mission 26” are presented below.

(1) Innovation & Digitalization
GEA’s innovation strategy is based on four key growth drivers that have a significant impact on the business and are of considerable importance to the company’s customers:

- Environmental Sustainability
- New Food
- Digital Customer Solutions
- Modularization and Configuration

By 2026, GEA aims to significantly increase the share of newly developed products, i.e. products that are not older than 5 years, in these areas. In 2026, the intention is to increase this share to 30 percent. In order to be able to achieve this goal, GEA will increase R&D spending in the next few years from 2.7 percent today - to 3.0 percent of sales.

In the area of digitalization, GEA is setting up a new “GEA Digital” organization under a newly appointed Chief Digital Officer, which will work closely with the divisions on new digital customer solutions. Further information can be found in the chapter “Research & Development”

(2) New food
New food comprises sustainably produced food, such as plant-based milk and meat alternatives. In vitro meat and precision fermented proteins as well as high-quality food ingredients, are also included in this product spectrum. New food is created from plant-based raw materials, such as grains, alternative nitrogen and energy sources, in extensive processing steps. The trend towards new food is steadily growing, as these foods are considered healthy, safe and ethically responsible. In addition, new food is seen as a possible basis for long-term, healthy nutrition for a growing world population. With its broad portfolio, GEA covers all processing steps of the different new food categories and strives to reap above-average benefits from this trend.

(3) Sales Excellence
As part of the Sales Excellence initiative, GEA intends to use its global regional and country (R&C) organization to define an appropriate route-to-market for each business unit, enabling accelerated growth in existing markets as well as additional growth opportunities in “white spots” (markets with lower market penetration). In addition, GEA will focus on increasing organizational effectiveness by defining uniform sales roles and incentive systems and strengthening the organization’s sales expertise through standardized sales tools and a group-wide sales handbook. As a result, revenue from the sale of machinery and equipment is expected to grow organically by an average of 4.0 to 5.0 percent per year until 2026.

(4) Service Excellence
GEA’s targets for the service business under its “Mission 2026” strategy include organic growth with a CAGR of 5 to 6 percent up to 2026, as well as transitioning the business from a transaction-based to a recurring model. GEA intends to positively develop the number of installed plants through stronger sales of new plants in the coming years and to significantly increase the service potential. To generate both, growth and recurring service business, GEA is focusing on three lines of action, based on internal performance benchmarking and maturity assessment:

- Optimizing and expanding the offering for the basic service business in the individual operating business units.
- Enhanced efforts to optimize and improve operating performance (e.g. spare 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 utilize the identified opportunities.

(5) Acquisitions

While most levers of “Mission 26” focus on boosting organic growth, strong cash generation enables GEA to invest in external growth. GEA continuously monitors and actively screens acquisition opportunities to strengthen the portfolio – provided they appear to be value-enhancing and specifically bolster GEA’s potential.

Since M&A transactions require availability of corresponding targets as a prerequisite, effects from successful acquisitions have not been factored into the medium-term goals for the group. Nevertheless, GEA has defined clear financial guardrails for value accretive transactions. Thus, external growth from acquisitions provides an additional opportunity.

Sustainability-related opportunities

GEA is convinced that a sustainable and climate-friendly orientation of the company will improve the resilience of its business model while opening up new business opportunities. As a solutions provider, GEA supports its customers’ ongoing sustainability transformation with solutions such as heat pumps, as well as more energy-efficient products that can achieve significantly reduced climate and sustainability impacts. GEA’s innovations to control nitrogen oxide emissions are in demand in the glass and cement industries, for example. GEA also sees market opportunities in new markets such as plant-based alternatives for meat and dairy products, where GEA’s solutions are already being used.

At its own sites, GEA can realize opportunities from resource efficiency in production and distribution processes and the expansion of climate-neutral production. A further consistent increase in energy efficiency in production, coupled with the use of renewable energies preferably from in-house generation, makes GEA more independent of energy price developments and can help to save operating costs. Applying the “local for local” principle in purchasing ensures, for example, shorter response times, but also less need for transportation and goes hand in hand with reduced costs as well as reduced climate and sustainability impacts.

With its consistent focus on sustainability, GEA is making an important contribution to overcoming global challenges and thus achieving a positive response from external stakeholders. GEA’s sustainability aspiration is thus reflected in very good ratings by ESG ratings and rankings.

With our focus on the sustainability aspect in our “Mission 2026” and the “Attractive Employer” field of action set out therein, GEA aims to sustainably improve its positioning on the labor market. The implementation of a women’s quota in the top 3 management levels of 21 percent by 2026 and the implementation of various talent pools underlines GEA’s seriousness about diversity as a success factor and will thus enable the company to attract the talent we will need in the future.

Another important prerequisite and opportunity for the digitalization of GEA’s products and internal processes, as well as for generating new customer orders, is information security. GEA’s current and new customers and business partners benefit from a robust Information Security Management System (ISMS) and can rely on the protection of their information and security of supply.

GEA sees great opportunities to further improve production sites towards best-in-class production as part of digitization, productivity and space optimization programs. Further strengthening of GEA’s lean culture will create opportunities for further optimization and streamlining of processes in all areas of production and administration.

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 combined group management report and that could influence the future development of its business.

Economic Environment in 2022

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 the relevant GDP forecasts made by the IMF to be key indicators for its own performance.

World Economic Outlook IWF (January 2022)	Outlook (percentage change)	
	2022	2021
Worldwide	4.4 %	5.9 %
Advanced Economies	3.9 %	5.0 %
Emerging markets and developing countries	4.8 %	6.5 %

In its January update of the "World Economic Outlook" for 2022, the IMF expects the positive development in 2021 to continue, with global economic growth of 4.4 percent. In 2021, the global economy grew 5.9 percent following the previous year's Covid-19-related decline.

The IMF forecasts a slowdown in growth in 2022 compared with the high level of 2021 for both advanced economies and emerging markets and developing economies.

It anticipates growth of 3.9 percent in advanced economies in 2022, compared with 5.0 percent in 2021, and growth of 4.8 percent in emerging markets and developing economies in 2022, compared with 6.5 percent in 2021.

Among the developed countries, the U.S. economy is projected to grow by around 4.0 percent in 2022, following a rise of 5.6 percent in 2021, while the Eurozone economy is expected to grow by 3.9 percent in 2022 after expanding by 5.2 percent in 2021.

For the major emerging market economies China, India, Russia and Brazil, the IMF expects the first two to record growth rates of 4.8 percent (China) and 9.0 percent (India), while significantly lower growth of 2.8 percent and 0.3 percent are forecasted for Russia and Brazil respectively.

The IMF has emphasized that the uncertainty of the economic growth forecasts for this year should not be underestimated. This includes the possibility of further, more aggressive Covid-19 variants emerging before a significant proportion of the world's population has been vaccinated. The IMF sees further risks in the current supply bottlenecks in parts of industry and in possibly higher-than-expected inflation.

Furthermore, the global economy is also expected to be affected by political tensions and trade disputes in 2022, particularly between the U.S. and China or between Russia and Ukraine, the EU and NATO.

Economic environment for GEA

For the current 2022 fiscal year, GEA expects demand in its sales markets to continue to improve further as a result of a global economic recovery, while global megatrends remain supportive. 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. In addition to an increased desire for food that is healthy, functional and safe, the demand for efficient production methods that also conserve valuable resources is on the rise.

In the medium to long term, the United Nations believe that the world's population, which currently stands at around 7.8 billion, will continue to rise. Compared to 2007, the world's population has already grown by around 1 billion people, and by 2 billion since 1995 (United Nations, World Population Prospects 2019). The United Nations expect the global population to grow further, albeit at a reduced pace, to between 8.4 and 8.7 billion in 2030, and to between 8.9 and 10.6 billion by 2050. With an estimated increase of between 1.2 and 2.6 billion until 2050, Asia and Africa will contribute almost exclusively to this growth.

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. The size of the middle class in this region is expected to grow from around 2 billion people in 2020 to 3.5 billion people in 2030 (Brookings Institution, 2017). The middle class is expected to grow by a moderate amount in Africa and Central and South America, while the size of the middle class in Europe and North America is predicted to remain stable.

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, which must meet the needs of an increasingly health-conscious population.

Growth in the customer industries

Based on its own latest estimates, external reports, and analyses conducted by industry associations, the following trends are forecast for GEA's main customer industries:

Milk Production

Global milk production continued to rise in 2021, with growth just below the long-term average over the year as a whole, despite a decline in production in the second half. The decline in the second half of the year was primarily attributable to the rising price of feed, fertilizer and energy, as well as unfavorable weather conditions in some regions. However, due to sustained high demand, milk prices toward the end of 2021 were at their highest level for nearly a decade.

Due to rising costs for farmers, no growth in milk production is expected in the short term. In addition, the latest Covid-19 restrictions and higher milk prices for consumers will also likely lead to a slight decline in demand in the near term.

Over the medium to long term, the global milk market is still expected to record slight growth due to demand for milk, particularly from emerging markets. However, regional factors, such as unfavorable weather conditions or political decisions, could lead to sharp fluctuations in milk production and prices, which would adversely impact the willingness of dairy farms to invest in the short term.

Dairy Processing

The Covid-19 pandemic and restrictions had no negative impact on the demand for dairy products overall in 2021. It is therefore still expected that global dairy product consumption will continue to rise due to the growing population and per capita income. Demand in emerging markets – especially South Asia – will be a major driver of demand growth, while dairy consumption growth in North America and Western Europe will be relatively modest due to the already high level of per capita dairy consumption.

Due to changes in customer behavior, dairies are primarily focusing on the flexible production of functional, high-value dairy products such as butter, cheese and yogurt, 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 expected.

Food

Driven by the steady recovery in "out-of-home channels" due to the easing of various Covid-19 restrictions and a sustained uptick in food retail, demand for food rose significantly in 2021. Global demand for packaged foods is expected to continue to rise over the medium term. Growth will be mainly driven by rising demand from emerging markets on the back of higher per-capita consumption, population growth and rising income. Changing consumer behavior is also driving growth, particularly in advanced economies. Consumer awareness of healthier foods and sustainable food production, and the resulting trend toward new and innovative foods, is leading food manufacturers to increase their expenditure on product innovations in order to compete in the market. Due to the growing demand for alternative proteins, new companies and food manufacturing processes are also emerging under the umbrella of new food. Overall, capital expenditure in the food sector is expected to grow at a stable rate over the medium-term.

Beverages

Following a sharp decline in 2020 due to the pandemic, demand for alcoholic beverages recovered in 2021, although it still had not returned to 2019 levels. Due to the emergence of new coronavirus variants, temporary restaurant closures in certain regions as well as festival and concert cancellations are likely to hamper a continued rapid recovery of demand in 2022. Demand for non-alcoholic beverages, which was less affected by the pandemic, is expected to already exceed 2019 levels in 2022 and to grow at higher rates than before the pandemic over the next few years.

Beverage consumption is expected to rise more in emerging economies than in developed markets, where only moderate growth is projected. Along with an expanding global middle-class population, particularly in emerging economies, the key drivers of growth remain increasing demand for innovative, functional and healthy drinks (e.g. hard seltzers, sports drinks and alcohol-free beer). Global and regional manufacturers are therefore expected to increasingly expand their portfolios of both alcoholic and non-alcoholic beverages to participate in the growth in existing and emerging categories of alcoholic and alcohol-free beverages.

Pharma

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 2021. However, it is expected that the currently high level of growth will return to close to pre-Covid-19 levels, with steadily rising demand for drugs still anticipated.

This growth is fueled by the expansion of the global middle class, better access to medical products, especially in the emerging markets, and the aging population in developed countries. Above-average growth is explicitly expected in the area of biopharmaceuticals, which includes the oncology field in addition to vaccines, as well as drug development for rare diseases. The increase in the number of drugs in the development pipeline will lead to new medicinal products being patented, with generic versions being produced at a higher rate after such patents expire. It is anticipated that "biosimilars" will record the most significant growth. Overall, capital expenditure in the pharmaceutical sector is expected to grow at a stable rate over the medium-term.

Chemical

The chemical industry was virtually unaffected by the Covid-19 pandemic in 2021. This resulted in above-average growth in 2021, driven in particular by the rising demand for chemical products to avoid materials shortages on the customer side and expand inventories. Despite the positive demand trend, the negative impact of global supply chain issues and rising energy prices were also felt in the chemical industry and will slow down growth in 2022.

In the medium-term, however, the rise in the world's population, ongoing urbanization, and the reclassification of rural land are set to fuel demand for, above all, petrochemicals (petroleum-based chemical products) and specialty chemicals. The still relatively low per-capita consumption of chemical-pharmaceutical products in the emerging markets compared with developed countries is likely to be a major growth driver as well. Capital expenditure is therefore forecast to increase further, particularly in Asia – which now accounts for significantly more than half of global chemical consumption.

Business outlook

The outlook is based on the IMF market forecasts and other assumptions explained in "Economic environment 2022." Following an increase of 5.9 percent in 2021, the global economy is expected to grow by a further, albeit weaker, rate of 4.4 percent in 2022.

Despite the overall positive growth expectations, the current economic environment is characterized by comparatively high inflation rates and rising energy, raw material, material and personnel costs. GEA intends to counter these challenges in particular by adjusting the prices of its own product-, project- and service portfolio.

In addition, delays in parts of the supply chains as well as negative effects of the Omicron variant of the Covid-19 virus on production are to be expected, at least in the first half of the year. As countermeasures, GEA is working continuously to develop alternative sources of supply and, in the event of production stoppages, can fall back on concepts that have already proven their worth during earlier phases of the pandemic.

GEA is therefore very confident, from its current perspective, of 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 2022 fiscal year, GEA is expecting for the overall group:

Outlook* fiscal year 2022	Expectations for 2022	2021
Revenue development (organic)	>5 % (significantly rising)	EUR 4,703 million
EBITDA before restructuring expenses (at constant exchange rates)	EUR 630 to 690 million	EUR 625 million
ROCE (at constant exchange rates)	24.0 to 30.0 %	27.8 %

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

GEA is expecting the following developments for the individual divisions:

Revenue development (organic)*	Expectations for 2022	2021
Separation & Flow Technologies	significantly rising	EUR 1,237 million
Liquid & Powder Technologies	significantly rising	EUR 1,546 million
Food & Healthcare Technologies	significantly rising	EUR 937 million
Farm Technologies	slightly rising	EUR 634 million
Heating & Refrigeration Technologies	slightly rising	EUR 584 million
Consolidation	–	EUR -235 million

*) 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)[1]	Expectations for 2022	2021
Separation & Flow Technologies	slightly rising	EUR 303 million
Liquid & Powder Technologies	significantly rising	EUR 150 million
Food & Healthcare Technologies	significantly rising	EUR 100 million
Farm Technologies	slightly rising	EUR 76 million
Heating & Refrigeration Technologies	significantly decling[2]	EUR 59 million
Others	significantly decling	EUR -63 million
Consolidation	-	EUR -1 million

1) For result variables, “slight” corresponds to a change of up to +/- 10 %, while changes of +/- 10 % or more are referred to as “significant.”
2) Due to the sale of refrigeration contracting and service operations in Spain and Italy

ROCE (3rd party; at constant exchange rates)[1]	Expectations for 2022	2021
Separation & Flow Technologies	slightly declining	31.1 %
Liquid & Powder Technologies	–[2]	–[2]
Food & Healthcare Technologies	significantly rising	14.7 %
Farm Technologies	slightly rising	19.8 %
Heating & Refrigeration Technologies	significantly decling	24.3 %

1) For ROCE, “slight” corresponds to a change of up to +/- 3 % p., while changes from +/- 3 % p. are described as “significant.” ROCE is not calculated for the “Others” segment.
2) ROCE for 2021 and 2022 not meaningful due to negative capital employed.

Further expectations

Dividends

The Executive Board and Supervisory Board will propose to the Annual General Meeting that a dividend of EUR 0.90 per share, EUR 0.05 higher than in the previous year, is paid for the fiscal year 2021.

Medium-term financial targets to 2026

At the end of September 2021, GEA presented new 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 4.0 to 6.0 percent annually until then. The EBITDA margin before restructuring expenses is expected to increase to more than 15.0 percent (2021: 13.3 percent) and ROCE (ratio of EBIT before restructuring expenses to capital employed) is expected to be more than 30.0 percent at the end of 2026 (2021: 27.8 percent). For more details, please refer to the section “Fundamental Information about the Group.”

Summary

GEA expects organic revenue growth of more than 5 percent and EBITDA before restructuring expenses in a range of EUR 630 million to EUR 690 million (at constant exchange rates) in fiscal year 2022 against the backdrop of the very high order backlog. The company anticipates that the return on capital employed (ROCE) will be within a range of 24.0 to 30.0 percent (at constant exchange rates).

Düsseldorf, March 1, 2022

Stefan Klebert Johannes Giloth Marcus A. Ketter

03

CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Balance Sheet
as of December 31, 2021

Assets (EUR thousand)	Section	12/31/2021	12/31/2020
Property, plant and equipment	5.1	649,110	627,791
Goodwill	5.2	1,481,241	1,502,073
Other intangible assets	5.3	381,520	381,845
Other non-current financial assets	5.4	65,382	51,601
Other non-current assets	5.5	4,148	2,599
Deferred taxes	7.7	379,861	333,830
Non-current assets		**2,961,262**	**2,899,739**
Inventories	5.6	714,926	623,813
Contract assets	7.1	335,550	348,335
Trade receivables	5.7	682,460	744,091
Income tax receivables		33,772	30,119
Other current financial assets	5.4	61,038	60,624
Other current assets	5.5	107,223	113,878
Cash and cash equivalents	5.8	928,296	821,852
Assets held for sale	5.9	49,844	44,455
Current assets		**2,913,109**	**2,787,167**
Total assets		**5,874,371**	**5,686,906**

Equity and liabilities (EUR thousand)	Section	12/31/2021	12/31/2020
Issued capital		513,753	520,376
Capital reserve		1,217,861	1,217,861
Retained earnings		282,089	177,152
Accumulated other comprehensive income		62,091	5,642
Equity attributable to shareholders of GEA Group AG		**2,075,794**	**1,921,031**
Non-controlling interests		417	418
Equity	6.1	**2,076,211**	**1,921,449**
Non-current provisions	6.2	142,187	132,762
Non-current employee benefit obligations	6.3	837,134	888,560
Non-current financial liabilities	6.4	373,817	518,824
Non-current contract liabilities	7.1	228	86
Other non-current liablities	6.6	1,129	875
Deferred taxes	7.7	101,913	98,573
Non-current liabilities		**1,456,408**	**1,639,680**
Current provisions	6.2	236,470	207,671
Current employee benefit obligations	6.3	253,257	220,308
Current financial liabilities	6.4	180,743	193,809
Trade payables	6.5	725,563	666,794
Current contract liabilities	7.1	765,933	682,265
Income tax liabilities		65,527	43,852
Other current liabilities	6.6	80,485	83,695
Liabilities held for sale	5.9	33,774	27,383
Current liabilities		**2,341,752**	**2,125,777**
Total equity and liabilities		**5,874,371**	**5,686,906**

Consolidated Income Statement
for the period January 1 – December 31, 2021

(EUR thousand)	Section	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Revenue	7.1	4,702,905	4,635,054
Cost of sales		3,147,451	3,218,967
Gross profit		**1,555,454**	**1,416,087**
Selling expenses		546,746	546,620
Research and development expenses		95,248	98,268
General and administrative expenses		545,466	499,045
Other income	7.2	388,253	453,640
Other expenses	7.3	379,842	465,022
Net result from impairment and reversal of impairment on trade receivables and contract assets		4,106	−37,706
Other financial income	7.5	4,645	3,497
Other financial expenses	7.6	5,451	5,379
Earnings before interest and tax (EBIT)		**379,705**	**221,184**
Interest income	7.5	7,669	4,562
Interest expense	7.6	29,322	28,638
Profit before tax from continuing operations		**358,052**	**197,108**
Income taxes	7.7	58,521	89,108
thereof current taxes		98,463	72,300
thereof deferred taxes		−39,942	16,808
Profit after tax from continuing operations		**299,531**	**108,000**
Profit or loss after tax from discontinued operations	7.8	**5,641**	**−11,175**
Profit for the period		**305,172**	**96,825**
thereof attributable to shareholders of GEA Group AG		305,174	96,829
thereof attributable to non-controlling interests		−2	−4

(EUR)	Section	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Basic and diluted earnings per share from continuing operations		1.66	0.60
Basic and diluted earnings per share from discontinued operations		0.03	−0.06
Basic and diluted earnings per share	7.9	**1.70**	**0.54**
Weighted average number of ordinary shares used to calculate basic and diluted earnings per share (million)		**180.0**	**180.5**

Consolidated Statement of Comprehensive Income
for the period January 1 – December 31, 2021

(EUR thousand)	Section	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Profit for the period		**305,172**	**96,825**
Items, that will not be reclassified to profit or loss in the future			
Actuarial gains/losses on pension and other post-employment benefit obligations	6.3.1	30,933	–32,300
thereof changes in actuarial gains and losses		40,793	–42,267
thereof tax effect		–9,860	9,967
Items, that were reclassified to profit or loss or will be reclassified subsequently			
Exchange differences on translating foreign operations		57,531	–81,425
thereof changes in unrealized gains and losses		57,253	–81,067
thereof realized gains and losses		278	–358
Result from fair value measurement of financial instruments		1,160	–8,379
thereof changes in unrealized gains and losses		1,528	–11,464
thereof tax effect		–368	3,085
Reclassification in profit or loss from fair value measurement of financial instruments		–1,160	8,379
thereof net result from impairment and reversal of impairment on financial assets		–1,528	11,464
thereof tax effect		368	–3,085
Result of cash flow hedges	3.4	–1,195	101
thereof changes in unrealized gains and losses	3.4	–1,967	145
thereof realized gains and losses	3.4	260	–
thereof tax effect	3.4	512	–44
Other comprehensive income		**87,269**	**–113,624**
Total comprehensive income		**392,441**	**–16,799**
thereof attributable to GEA Group AG shareholders		392,443	–16,795
thereof attributable to non-controlling interests		–2	–4

Consolidated Cash Flow Statement
for the period January 1 – December 31, 2021

(EUR thousand)	Section	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Profit for the period		305,172	96,825
plus income taxes		58,521	89,108
minus profit or loss after tax from discontinued operations		–5,641	11,175
Profit before tax from continuing operations		358,052	197,108
Net interest income		21,653	24,076
Earnings before interest and tax (EBIT)		**379,705**	**221,184**
Depreciation, amortization, impairment losses, and reversal of impairment losses on non-current assets		189,565	257,150
Other non-cash income and expenses		35,172	41,861
Employee benefit obligations from defined benefit pension plans		–41,801	–46,522
Change in provisions and other employee benefit obligations		67,329	41,397
Losses and disposal of non-current assets		–6,225	–337
Change in inventories including unbilled construction contracts*		3,335	177,052
Change in trade receivables		40,033	106,086
Change in trade payables		63,338	–41,571
Change in other operating assets and liabilities		36,301	21,323
Tax payments		–90,883	–59,780
Cash flow from operating activities of continued operations		**675,869**	**717,843**
Cash flow from operating activities of discontinued operations		6,132	–2,625
Cash flow from operating activities		**682,001**	**715,218**
Proceeds from disposal of non-current assets		13,423	3,847
Payments to acquire property, plant and equipment, and intangible assets		–129,854	–97,584
Contribution in non-current financial assets		–3,535	–
Payments from non-current financial assets		–1,324	–37
Interest income		2,104	2,127
Dividend income		4,177	1,325
Proceeds/Payments from sale of subsidiaries and other businesses		2,551	–1,878
Cash flow from investing activities of continued operations		**–112,458**	**–92,200**

(EUR thousand)	Section	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Cash flow from investing activities of discontinued operations		–12	1,000
Cash flow from investing activities		**–112,470**	**–91,200**
Dividend payments		–153,418	–153,418
Payments for acquisition of treasury shares		–93,793	–
Payments from lease liabilities		–61,870	–62,362
Proceeds from finance loans		–	143,164
Repayments of finance loans		–157,742	–50,000
Interest payments		–12,629	–15,968
Cash flow from financing activities of continued operations	10.1	**–479,452**	**–138,584**
Cash flow from financing activities of discontinued operations		–73	–55
Cash flow from financing activities	10.1	**–479,525**	**–138,639**
Effect of exchange rate changes on cash and cash equivalents		16,339	–17,714
Change in unrestricted cash and cash equivalents		106,345	467,665
Unrestricted cash and cash equivalents at beginning of period		**821,844**	**354,179**
Unrestricted cash and cash equivalents at end of period		**928,189**	**821,844**
Restricted cash and cash equivalents	5.8	109	114
Cash and cash equivalents total		**928,298**	**821,958**
less cash and cash equivalents classified as held for sale		–2	–106
Cash and cash equivalents reported in the balance sheet	5.8	**928,296**	**821,852**

*) Including advanced payments received.

Consolidated Statement of Changes in Equity
as of December 31, 2021

				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 Jan. 1, 2020 (180,492,172 shares)	**520,376**	**1,217,861**	**265,176**	**86,260**	**–**	**–**	**2,089,673**	**421**	**2,090,094**
Profit for the period	–	–	96,829	–	–	–	**96,829**	–4	**96,825**
Other comprehensive income	–	–	–32,300	–81,425	–	101	**–113,624**	–	**–113,624**
Total comprehensive income	–	–	64,529	–81,425	–	101	**–16,795**	–4	**–16,799**
Purchase of treasury shares	–	–	–	–	–	–	**–**	–	**–**
Dividend payment by GEA Group Aktiengesellschaft	–	–	–153,418	–	–	–	**–153,418**	–	**–153,418**
Adjustment Hyperinflation*	–	–	614	706	–	–	**1,320**	–	**1,320**
Changes in combined Group	–	–	251	–	–	–	**251**	–	**251**
Change in other non-controlling interests	–	–	–	–	–	–	**–**	1	**1**
Balance at Dec. 31, 2020 (180,492,172 shares)	**520,376**	**1,217,861**	**177,152**	**5,541**	**–**	**101**	**1,921,031**	**418**	**1,921,449**
Profit for the period	–	–	305,174	–	–	–	**305,174**	–2	**305,172**
Other comprehensive income	–	–	30,933	57,531	–	–1,195	**87,269**	–	**87,269**
Total comprehensive income	–	–	336,107	57,531	–	–1,195	**392,443**	–2	**392,441**
Purchase of treasury shares	–6,623	–	–87,170	–	–	–	**–93,793**	–	**–93,793**
Dividend payment by GEA Group Aktiengesellschaft	–	–	–153,418	–	–	–	**–153,418**	–	**–153,418**
Adjustment Hyperinflation*	–	–	1,466	113	–	–	**1,579**	–	**1,579**
Changes in combined Group	–	–	7,952	–	–	–	**7,952**	–	**7,952**
Change in other non-controlling interests	–	–	–	–	–	–	**–**	1	**1**
Balance at Dec. 31, 2021 (178,195,139 shares)	**513,753**	**1,217,861**	**282,089**	**63,185**	**–**	**–1,094**	**2,075,794**	**417**	**2,076,211**

*) 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" in short). 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.

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 cash flow statement 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 1, 2022.

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
IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16	Interest Rate Benchmark Reform – Phase 2 (amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16) (issued by the IASB in August 2020)	January 1, 2021
IFRS 16	Amendments to IFRS 16 „Leases“ - Covid-19-Related Rent Concessions beyond 30 June 2021 (issued by the IASB in March 2021)	April 1, 2021 (retroactive application as of January 1, 2021)

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 reporting standards and interpretations as well as amendments to existing standards and interpretations presented below were issued but not yet mandatory to be applied to the preparation of the IFRS consolidated financial statements as of December 31, 2021.

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
IAS 1	Amendments to IAS 1 “Presentation of Financial Statements” (issued by the IASB in January 2020, July 2020 and February 2021)	January 1, 2023 (subject to endorsement by the EU)
IFRS 3	Amendments to IFRS 3 “Business Combinations” (issued by the IASB in May 2020)	January 1, 2022
IAS 16	Amendments to IAS 16 “Property, Plant and Equipment” – Proceeds before Intended Use (issued by the IASB in May 2020)	January 1, 2022
IAS 37	Amendments to IAS 37 “Provisions, Contingent Liabilities and Contingent Assets” – Onerous Contracts – Cost of Fulfilling a Contract (issued by the IASB in May 2020)	January 1, 2022
IFRS 1, IFRS 9, IFRS 16 and IAS 41	Improvements to IFRSs 2018–2020 Cycle – amendments under the IASB’s annual improvements project (issued by the IASB in May 2020)	January 1, 2022
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 (subject to endorsement by the EU)
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 (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, Estimates and Management Judgment

Basis of 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.

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 2021:

Number of companies	2021	2020
Consolidated group as of January 1	**188**	**197**
German companies (including GEA Group AG)	28	29
Foreign companies	160	168
Initial consolidation*	1	2
Merger	-	-2
Liquidation	-2	-4
Sale	-5	-2
Deconsolidation	-	-3
Consolidated group as of December 31	**182**	**188**
German companies (including GEA Group AG)	27	28
Foreign companies	155	160

*) Refers to the initial consolidation of GEA (Tianjin) Farm Technology Co.,Ltd. in 2021, and GEA Group Services GmbH and GEA Peruana SAC in 2020

A total of 48 subsidiaries (previous year: 47) 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: 0.1 percent) of the group's aggregate consolidated revenue, while their earnings account for -0.2 percent (previous year: 0.0 percent) of recognized earnings before tax of the complete group, and their equity accounts for 1.2 percent (previous year: 1.2 percent) of consolidated equity. The subsidiaries are measured at cost and recognized as other non-current financial assets, as their fair value cannot be determined with sufficient certainty.

A complete list of all subsidiaries, associates and joint ventures can be found in No. 12.4 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, one investment 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 consideration are recognized on the basis of the current forecast.

Currency translation

The group companies prepare their annual financial statements 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 period under review. 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 reported in equity under other comprehensive income and adjusted.

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 must be recognized for each lease agreement. Rather than separating leasing from non-leasing components, GEA accounts for each leasing component and all its associated non-leasing components as a single leasing 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 leasing agreements, mainly in the real estate area, that include renewal and termination options. While 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 or not 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 against voluntarily applying 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 to be found primarily in the areas of real estate, vehicles and IT. The average residual term of real estate and vehicle lease agreements is around two years, while for IT equipment it is around three 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.

Investment property

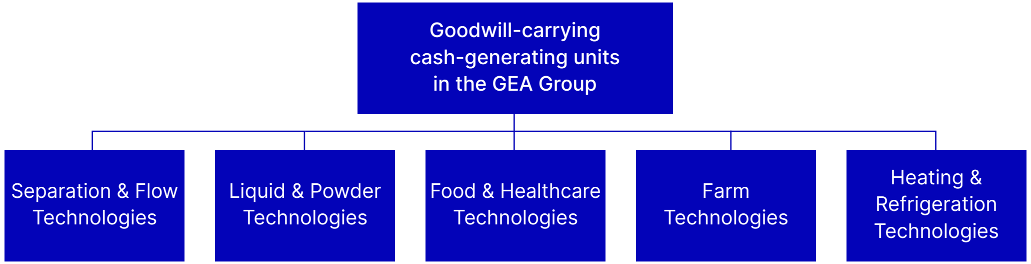
Property that is held to earn rentals or for capital appreciation is reported as investment property. In the case of property that is held partly to generate rental income and partly to produce or supply goods or services, or for administrative purposes, the entire property is classified as investment property if the own use proportion is insignificant. This is assumed to be the case if the proportion is below 10 percent.

Cost is depreciated using the straight-line method over a period of between 10 and 50 years. Please refer to the section “Impairment losses on property, plant and equipment, and intangible assets” for information on the impairment of investment property.

Investment property is reported in the balance sheet under property, plant and equipment.

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 also 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 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 costs 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 costs of disposal is generally the benchmark for measuring the impairment of business units classified as “held for sale”.

The valuations of other intangible assets, which were performed as part of the impairment test, are based on management assumptions.

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.

Other financial assets

Other financial assets include other equity investments, other securities, financial receivables (except trade receivables) and derivative financial instruments.

Other financial assets are recognized as soon as GEA receives a cash payment or is entitled to receive cash flows. In the case of regular way 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 payments 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 way 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.

Items are originally recognized at fair value or, in the case of financial assets not measured at fair value, including directly attributable transaction costs.

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.

Securitized debt instruments and other financial assets are to be classified on the basis of the company’s business model for managing these assets and on the assets’ contractual cash flow characteristics, and measured at amortized cost or at fair value. 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 to be tested for impairments. Gains and losses are recognized in profit or loss if the asset is derecognized, modified or impaired.

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 calculated 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 are 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.

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 the No. 7.7 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.

IFRIC 23 provides clarification on how to apply the recognition and measurement requirements set out in IAS 12 when uncertainty exists about the income tax treatment and covers current and deferred tax assets or liabilities. In making the assessment, the assumption must be made that tax authorities will audit all amounts within their authority and that they possess all the relevant information required to audit such amounts. In cases where it is considered unlikely that the tax authority will accept 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 cost is calculated at average cost or using the first-in, first-out (FIFO) method. Production cost includes direct costs plus materials and production overheads, depreciation, and production-related administrative costs. Net realizable value is calculated as the estimated sale proceeds less costs incurred until completion and selling expenses. Previously recognized impairment losses must be reversed if the reasons for the impairment no longer apply. Impairment losses are reversed up to a maximum of the amortized historical cost.

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.

Trade receivables

Trade receivables include no interest component 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.

The classification and measurement of trade receivables are subject to the same criteria used for the other financial assets. Due to existing factoring arrangements, certain trade receivables are classified as “measured at fair value through other comprehensive income” (FVOCI).

Individual trade receivables 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 judgment. Impairment losses are recognized in profit or loss. 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 No. 3 of the Notes to the Consolidated Financial Statements.

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 risk of changes in value. Depending on the company’s business model for managing these financial assets and on the assets’ contractual cash flow characteristics, cash equivalents are recognized either at amortized cost or at fair value using the effective interest method. Any fluctuation in value during fair-value measurement are recognized either through profit or loss or through other comprehensive income.

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 is to 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 costs 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 cash flow statement respectively. Prior-year figures are also 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 instead 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 insurance 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 No. 6.3.1 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 expenditure 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, the management must make 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 must, above all, estimate the amount of the expected severance payments. To this end, the management must make assumptions with regard to the wage structure and length of service of the employees affected by the cuts, 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 the No 6.2 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 at the time when the reserve is recognized 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 highly likely 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 litigation. The outcome of this litigation 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 No 8.1 of the Notes to the Consolidated Financial Statements).

Financial liabilities

Financial liabilities include borrower's note loans, liabilities to banks, lease liabilities and other financial liabilities. Initial recognition is at fair value, less transaction costs incurred. They are subsequently measured at amortized cost using the effective interest method. Lease liabilities are initially measured at the present value of the future leasing payments. The financial liabilities also include derivative financial instruments measured at fair value.

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.

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

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 as of 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 cost and the actual cost 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 as of 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 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 as of 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 No 6.3.3 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 satisfied. 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 compensation for 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.

Accounting in high-inflation economies

Financial statements are adjusted on the basis of historical costs of acquisition and sales, whereby line items in the balance sheet that are not yet expressed in a monetary unit must be translated using a general price index. The same applies to income and expenses. Translation of monetary assets and liabilities is not required if they are subject by contractual arrangement to changes in price or are expressed as current values.

The following table shows material estimates and management judgment:

	Significant estimates and judgments
Goodwill and other intangible assets	• Valuation based on management assumptions using the discounted cash flow method • 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
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 • 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 of the net balance sheet amount on the basis of the interest rate of industrial bonds with a high credit rating, which are denominated in the currency in which the benefits are also paid and whose maturities correspond to those of the pension obligations
Classification and evaluation under IFRS 5	• Consideration of all events and circumstances relevant in assessing the timing of classification of a non-current asset or a disposal group as "held for sale" • Measurement at the lower of carrying amount and fair value less costs to sell
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

* Affected by "Covid-19" The impacts on estimates and management judgment are presented in the respective chapters.

3. Risk management and financial instruments

3.1 Financial Risk Management

Basic information concerning financial risk management is provided in the Management Report in the section entitled "Report on Risks and Opportunities", subsection "Financial Risks."

Credit risk

Impairments on financial instruments measured at fair value through other comprehensive income amounted to EUR 14,902 thousand (previous year: EUR 18,939 thousand) as at 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 Management Report in the section entitled "Report on Risks and Opportunities", 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 category 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 at December 31, 2021, the weighted average scaling factor is 1.3. It was 1.3 as at December 31, 2020.

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, threat of insolvency, and concessions made by the debtor 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 not credit-impaired as of December 31, 2021:

(EUR thousand)	Gross carrying amount	Weighted average loss rate	Range of loss rates	Loss allowance
Not overdue	929,427	1.06%	0.20% - 4.40%	9,838
of which contract assets	338,674	0.92%	0.20% - 4.40%	3,124
of which trade receivables	590,753	1.14%	0.20% - 4.40%	6,714
Overdue (trade receivables)	82,770	5.32%	0.70% - 75.00%	4,401
of which overdue less than 181	77,232	3.59%	0.70% - 14.20%	2,775
of which overdue between 181 and 360	3,679	17.91%	3.90% - 36.90%	659
of which overdue between 361 and 720	1,276	41.54%	8.30% - 61.40%	530
of which overdue more than 720	583	75.00%	75.00%	437
Total	**1,012,197**			**14,239**

The table below shows the expected credit losses on trade receivables and contract assets not credit-impaired as of December 31, 2020:

(EUR thousand)	Gross carrying amount	Weighted average loss rate	Range of loss rates	Loss allowance
Not overdue	923,993	1.04%	0.20% - 4.40%	9,571
of which contract assets	351,709	0.96%	0.20% - 4.40%	3,374
of which trade receivables	572,284	1.08%	0.20% - 4.40%	6,197
Overdue (trade receivables)	140,802	5.58%	0.70% - 75.00%	7,863
of which overdue less than 181	130,223	3.45%	0.70% - 14.20%	4,494
of which overdue between 181 and 360	5,928	15.69%	3.90% - 36.90%	930
of which overdue between 361 and 720	2,965	39.60%	8.30% - 61.40%	1,174
of which overdue more than 720	1,686	75.00%	75.00%	1,265
Total	**1,064,795**			**17,434**

The table below reconciles the impairments on trade receivables and contract assets as of January 1 with the impairments as of December 31:

	2021	2020
Impairments as of January 1	**89,357**	**75,246**
Derecognition	–8,393	–18,600
Expenses from remeasurement of impairments (Reversal)	–20,807	–5,865
Income from remeasurement of impairments (Addition)	16,701	43,571
Exchange rate effects	3,146	–4,803
Other changes	–3,011	–192
Impairments as of December 31	**76,993**	**89,357**

The other changes relate to effects from the change in the basis of consolidation as well as the reclassification of associated assets as “Assets held for sale.”

During the 2021 fiscal year, the change in the impairments was essentially related to credit-impaired trade receivables and contract assets. At EUR 7,793 thousand, the largest decline in impairments was attributable to the Western Europe, Middle East and Africa region. Further material declines of EUR 3,187 thousand were attributable to the Northern and Central Europe region and EUR 2,076 thousand to the North America region. In the remaining regions, impairment losses increased by EUR 692 thousand.

During the 2020 fiscal year, the change in the impairments was essentially related to trade receivables and contract assets, not creditimpaired. At EUR 5,290 thousand, the largest increase in impairments was attributable to the North America region. Further material increases of EUR 3,208 thousand were attributable to the DACH and Eastern Europe regions and EUR 3,449 thousand to the Western Europe, Middle East and Africa region. In the remaining regions, impairments rose by EUR 2,164 thousand.

In fiscal year 2021, trade receivables with a contractual amount of EUR 332 thousand (previous year: EUR 240 thousand) were still subject to enforcement activity.

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 section entitled “Report on Risks and Opportunities”, 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 significant impairments on cash and cash equivalents were identified in fiscal year 2021.

Additional information concerning credit risks in connection with cash and cash equivalents is provided in the Management Report in the section entitled “Report on Risks and Opportunities”, subsection “Financial Risks.”

Other financial assets

GEA calculates expected credit losses on its other financial assets according to risk category 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. When losses accrue, 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.

To reduce the credit risk involved, derivative financial instruments are only entered into with financial institutions with a sufficient credit rating.

As of December 31, 2021, impairments on other financial assets totaled EUR 4,480 thousand. The increase of EUR 145 thousand was due to the addition of impairments on credit-impaired financial assets.

As of December 31, 2020, impairments on other financial assets totaled EUR 4,335 thousand. The increase of EUR 355 thousand was due to the addition of impairment losses on credit-impaired financial assets.

Liquidity risk

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
2021							
Trade payables	725,563	725,467	96	–	–	–	–
Borrower’s note loan	251,967	2,700	130,629	1,579	123,507	–	–
Liabilities to banks	10,747	11,048	357	55	–	–	–
Lease liabilities	165,816	59,108	44,592	31,076	20,839	12,053	20,946
Currency derivatives not included in a hedging relationship	11,683	585,482	38,220	1,092	1,244	–	–
Currency derivatives included in a cash flow hedge	1,094	14,863	–	–	–	–	–
Other financial liabilities	113,253	101,437	6,279	144	150	157	7,601
2020							
Trade payables	666,794	666,794	–	–	–	–	–
Borrower’s note loan	251,882	2,700	2,700	130,629	1,579	123,507	–
Liabilities to banks	167,701	18,643	26	61	544	50,000	100,000
Lease liabilities	156,945	57,857	40,068	25,504	17,853	13,452	16,463
Currency derivatives not included in a hedging relationship	6,687	421,376	2,942	–	–	–	–
Currency derivatives included in a cash flow hedge	–	–	–	–	–	–	–
Other financial liabilities	129,418	104,484	14,302	2,653	2,768	129	6,219

All financial liabilities outstanding as of December 31, 2021 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 640,901 thousand (previous year: EUR 424,318 thousand) were partially offset by payments received from these instruments of EUR 626,554 thousand (previous year: EUR 418,282 thousand).

As of December 31, 2021, the group held cash credit lines of EUR 988,125 thousand (previous year: EUR 1,430,967 thousand), of which EUR 260,436 thousand had been utilized (previous year: EUR 417,174 thousand). The cash credit lines are composed of the following items:

(EUR thousand)	Maturity	12/31/2021 approved	12/31/2021 utilized	12/31/2020 approved	12/31/2020 utilized
Borrower's note loan (2023)	February 2023	128,000	128,000	128,000	128,000
Borrower's note loan (2025)	February 2025	122,000	122,000	122,000	122,000
Bilateral credit lines	until further notice	88,125	10,436	80,967	17,174
Syndicated credit line („Club Deal")	August 2026	650,000	–	650,000	–
European Investment Bank (2025)	December 2025	–	–	50,000	50,000
European Investment Bank (2027)	March 2027	–	–	100,000	100,000
Syndicated credit line II	August 2021	–	–	200,000	–
European Investment Bank III	Juli 2021	–	–	100,000	–
Total		**988,125**	**260,436**	**1,430,967**	**417,174**

As of August 10, 2021, the club deal was refinanced with an equivalent revolving credit facility, which matures in August 2026.

Section 6.4 of the Notes to the Consolidated Financial Statements contains more information on GEA's financial liabilities.

As of December 31, 2021, guarantee lines for the performance of contracts, advance payments, and warranty obligations of EUR 1,096,317 thousand were available to the group as a whole (previous year: EUR 1,131,314 thousand), EUR 411,268 thousand of which has been utilized (previous year: EUR 421,072 thousand). The guarantees are generally payable at first demand. As 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.

Due to the discontinuation of contractual obligations to customers of the GEA Heat Exchangers (HX) Segment, which was sold as of October 31, 2014, bank and group guarantees for these customer claims are no longer issued as of December 31, 2021. At the end of the previous year, group guarantees of EUR 41,111 thousand had still been issued by GEA Group Aktiengesellschaft as collateral for contractual obligations of the GEA HX Segment. The bank guarantees provided as collateral by the purchaser of the HX Segment were reduced and returned simultaneously.

At the end of the year, EUR 95,661 thousand (previous year EUR 88,162 thousand) of group guarantees had been issued as collateral for contractual obligations of Lurgi AG to its customers in the unlikely event of default.

As collateral for contractual obligations to customers of GEA Refrigeration Italy S.p.A. and GEA Refrigeration Iberica S.A., which were sold on October 29, 2021, bank and group guarantees of EUR 9,232 thousand were issued from GEA Group Aktiengesellschaft credit lines as of December 31, 2021. The acquirer has issued a reassurance in favor of GEA Group Aktiengesellschaft in the amount of EUR 15,216 thousand to cover a payment default.

Additional information concerning liquidity risks is provided in the Management Report in the section entitled "Report on Risks and Opportunities", 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 the hedge has been executed for economic reasons and is not included in a documented hedging relationship, a 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)	2021					
Base currency	Foreign currency	net risk exposure	Profit/loss for the year		Equity	
			+ 10 %	- 10 %	+ 10 %	- 10 %
EUR	USD	–119,675	10,339	–12,637	675	–825
EUR	GBP	31,087	–2,886	3,527	–	–
EUR	CNY	–22,297	1,381	–1,689	669	–817
EUR	ZAR	19,006	–1,739	2,125	–	–
EUR	NZD	–12,104	1,103	–1,349	–	–
EUR	RUB	–10,089	917	–1,121	–	–

(EUR thousand)	2020					
Base currency	Foreign currency	net risk exposure	Profit/loss for the year		Equity	
			+ 10 %	- 10 %	+ 10 %	- 10 %
EUR	USD	–117,818	10,082	–12,324	557	–680
EUR	GBP	29,833	–2,711	3,313	–	–
EUR	PLN	–18,848	1,718	–2,100	–	–
EUR	CNY	11,774	–920	1,125	131	–160
EUR	ZAR	11,619	–1,063	1,299	–	–
EUR	NZD	–11,250	1,028	–1,257	–	–

The net risk relates to all contractually agreed foreign currency cash flows, collated into a single net position, 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 risk is provided in the Management Report in the section entitled “Report on Risks and Opportunities”, 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 risk 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 risk 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 risk 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 risk in the income statement.
- Currency derivatives are not subject to material interest rate risk and therefore have no effect on interest rate sensitivity.

The sensitivity analysis assumes a linear shift in the yield curves for all currencies of +100 or -100 basis points as of the reporting date. This results in the following effects for the simulated scenarios:

	12/31/2021		12/31/2020	
(EUR thousand)	+ 100 basis points	- 100 basis points	+ 100 basis points	- 100 basis points
Interest rate risk recognized in profit or loss	–200	–	–1,633	57

The calculation is based on a nominal volume of EUR 50,000 thousand (previous year: EUR 205,798 thousand).

Additional information concerning interest rate risk is provided in the Management Report in the section entitled “Report on Risks and Opportunities”, subsection “Financial Risks.”

3.2 Financial instruments: Classifications and fair values

The following tables shows the carrying amount and fair values of financial assets and financial liabilities as of December 31, 2021, including their levels 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 12/31/2021	Amortized cost	Fair value through profit or loss	Fair value recognized in other comprehensive income	Measurement in accordance with other IFRSs	Total 12/31/2021	Level 1	Level 2	Level 3
Assets									
Trade receivables	682,460	511,754	–	170,706	–	170,706	–	170,706	–
Cash and cash equivalents	928,296	928,296	–	–	–	–	–	–	–
Other financial assets	126,420	76,925	10,654	244	38,597	10,898	–	4,586	6,312
of which investments in unconsolidated subsidiaries	33,091	–	–	–	33,091	–	–	–	–
of which at-equity investments	5,506	–	–	–	5,506	–	–	–	–
of which other investments	244	–	–	244	–	244	–	–	244
of which other securities	6,068	–	6,068	–	–	6,068	–	–	6,068
of which derivatives included in a hedging relationship	–	–	–	–	–	–	–	–	–
of which derivatives not included in a hedging relationship	4,586	–	4,586	–	–	4,586	–	4,586	–
of which remaining other financial assets	76,925	76,925	–	–	–	–	–	–	–
Liabilities									
Trade payables	725,563	725,563	–	–	–	–	–	–	–
Financial liabilities	554,560	375,431	12,219	–	165,816	292,172	–	290,193	1,979
of which bonds and other securitized liabilities	251,967	251,967	–	–	–	257,594	–	257,594	–
of which liabilities to banks	10,747	10,747	–	–	–	10,747	–	10,747	–
of which lease liabilities	165,816	–	–	–	165,816	–	–	–	–
of which derivatives included in a hedging relationship	1,094	–	–	–	–	1,094	–	1,094	–
of which derivatives not included in a hedging relationship	11,683	–	11,683	–	–	11,683	–	11,683	–
of which contingent consideration	536	–	536	–	–	536	–	–	536
of which remaining financial liabilities	112,717	112,717	–	–	–	10,518	–	9,075	1,443

(EUR thousand)	Carrying amount					Fair value			
	Total 12/31/2020	Amortized cost	Fair value through profit or loss	Fair value recognized in other comprehensive income	Measurement in accordance with other IFRSs	Total 12/31/2020	Level 1	Level 2	Level 3
Assets									
Trade receivables	744,091	572,974	–	171,117	–	171,117	–	171,117	–
Cash and cash equivalents	821,852	821,852	–	–	–	–	–	–	–
Other financial assets	112,225	60,871	13,386	244	37,579	13,775	–	5,180	8,595
of which investments in unconsolidated subsidiaries	32,384	–	–	–	32,384	–	–	–	–
of which at-equity investments	5,195	–	–	–	5,195	–	–	–	–
of which other investments	244	–	–	244	–	244	–	–	244
of which other securities	8,351	–	8,351	–	–	8,351	–	–	8,351
of which derivatives included in a hedging relationship	145	–	–	–	–	145	–	145	–
of which derivatives not included in a hedging relationship	5,035	–	5,035	–	–	5,035	–	5,035	–
of which remaining other financial assets	60,871	60,871	–	–	–	–	–	–	–
Liabilities									
Trade payables	666,794	666,794	–	–	–	–	–	–	–
Financial liabilities	712,633	548,465	7,223	–	156,945	464,813	–	445,563	19,250
of which bonds and other securitized liabilities	251,882	251,882	–	–	–	260,167	–	260,167	–
of which liabilities to banks	167,701	167,701	–	–	–	170,844	–	170,844	–
of which lease liabilities	156,945	–	–	–	156,945	–	–	–	–
of which derivatives included in a hedging relationship	–	–	–	–	–	–	–	–	–
of which derivatives not included in a hedging relationship	6,687	–	6,687	–	–	6,687	–	6,687	–
of which contingent consideration	536	–	536	–	–	536	–	–	536
of which remaining financial liabilities	128,882	128,882	–	–	–	26,579	–	7,865	18,714

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 described in the following. 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 2021.

The fair values of trade receivables and trade payables, cash and cash equivalents, term deposits, and other financial receivables essentially correspond to the carrying amounts; this is due to the predominantly short remaining maturities.

In the case of certain trade receivables measured at fair value due to existing factoring arrangements, said fair value is calculated based on yield curves observable in the market. These are categorized within Level 2 of the fair value hierarchy.

These 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 2021:

(EUR thousand)	
Fair value 01/01/2021	**8,351**
Redemption	–3,235
Interest income	297
Currency translation	655
Fair value 12/31/2021	**6,068**

As of December 31, 2021, the key, non-observable input factors of the above-mentioned receivable consisted of expected annual cash inflows of between EUR 121 thousand and EUR 2,411 thousand and an average, risk-adjusted discount rate of 4.1 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):

	12/31/2021	
	Profit or loss	
(EUR thousand)	Increase	Decrease
Expected cash flows (10% movement)	607	–607
Risk-adjusted discount rate (movement 100 basis points)	–99	103

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. The fair value is determined by using inputs that are not based on observable market data.

Financial liabilities resulting from contingent purchase price considerations are assigned to Level 3 of the fair value hierarchy. The fair value of these liabilities is determined by means of present value calculations, taking into account various inputs that are not observable in the market, and that are based in particular on corporate planning, as specified in the respective purchase price clauses.

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 allocated to Level 2 of the fair value hierarchy. The interest deferred as of the reporting date is included in the fair values.

Other financial liabilities include a contractual obligation undertaken in the context of a company acquisition. The fair value of this debt instrument was determined based on the contractually fixed cash flows using the "ultimate forward rate" published by the European Insurance and Occupational Pensions Authority. These are categorized within Level 2 of the fair value hierarchy.

Certain other financial liabilities resulting from the sale of the GEA HX segment are categorized within Level 3 of the fair value hierarchy since their fair value is measured on the basis of the present value of future cash outflows expected on the basis of contractual obligations associated with the sale.

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 IFRS 9 measurement category:

	12/31/2021			12/31/2020		
(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	48,873	3,734	3,570	22,729	2,418	–22,045
Financial assets measured at fair value recognized in other comprehensive income	1,535	–	1,528	–11,466	–	–11,464
Equity instruments measured at fair value recognized in other comprehensive income	24	–	–	24	–	–
Financial assets / liabilities measured at fair value through profit or loss	16,921	–	–	–16,731	–	–
Financial liabilities measured at amortized cost	–35,917	–11,460	–	–51,338	–13,169	–
Total	**31,436**	**–7,726**	**5,098**	**–56,782**	**–10,751**	**–33,509**

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.

	12/31/2021		12/31/2020	
(EUR thousand)	Notional value	Fair value	Notional value	Fair value
Assets				
Currency derivatives not included in a hedging relationship	364,152	4,586	292,324	5,035
Currency derivatives included in a cash flow hedge	–	–	7,613	145
Total	**364,152**	**4,586**	**299,937**	**5,180**
Liabilities				
Currency derivatives not included in a hedging relationship	625,863	11,683	420,001	6,687
Currency derivatives included in a cash flow hedge	14,863	1,094	–	–
Total	**640,726**	**12,777**	**420,001**	**6,687**

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

In 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 uses the hypothetical derivative method to assess whether the designated derivative is expected to be effective in relation to changes in the cash flows of the hedged item.

To hedge its currency risk, GEA designates the spot portion of forward exchange contracts at a hedge ratio of 1:1. The forward elements of forward exchange contracts are excluded from designation and are recognized and reported separately in equity under the cost of hedging reserve. The critical terms of the forward exchange contract align to the hedged item.

Currency derivatives with a term of less than one year are concluded to hedge foreign currency risks. As of December 31, 2021, the average hedge rate is 1.21 for EUR/USD and 7.97 for EUR/CNY.

The following table shows the hedged items designated as cash flow hedges:

(EUR thousand)	Cash flow hedge reserve	Cost of hedging reserve
12/31/2021		
Exchange rate risk		
Sales	–947	–147
Inventory purchases	–	–
12/31/2020		
Exchange rate risk		
Sales	110	–9
Inventory purchases	–	–

As of December 31, 2021, 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 cost of hedging reserve is recognized directly in the initial cost of the non-financial item when 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 when 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
2021								
Exchange rate risk								
Currency derivatives - Sales	34,305	–	1,094	other financial assets, financial liabilities	–1,692	–275	182	78
Currency derivatives - Inventory purchases	–	–	–	other financial assets, financial liabilities	–	–	–	–
2020								
Exchange rate risk								
Currency derivatives - Sales	7,631	145	–	other financial assets, financial liabilities	158	–13	–	–
Currency derivatives - Inventory purchases	–	–	–	other financial assets, 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 01/01/2020	**–**	**–**
Change in the fair value		
Exchange rate risk - Sales	158	–13
Exchange rate risk - Inventory purchases	–	–
Amount reclassified into profit or loss		
Exchange rate risk - Sales	–	–
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	–48	4
As of 12/31/2020	**110**	**–9**
As of 01/01/2021	**110**	**–9**
Change in the fair value		
Exchange rate risk - Sales	–1,692	–275
Exchange rate risk - Inventory purchases	–	–
Amount reclassified into profit or loss		
Exchange rate risk - Sales	182	78
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	453	59
As of 12/31/2021	**–947**	**–147**

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
12/31/2021				
Receivables from derivatives	4,428	4,428	3,624	804
Liabilities from derivatives	12,935	12,935	3,624	9,311
12/31/2020				
Receivables from derivatives	4,857	4,857	3,155	1,702
Liabilities from derivatives	6,316	6,316	3,155	3,161

The receivables and liabilities shown are carried under other financial assets and other financial liabilities respectively.

4. Divestments

4.1 Bock Group

4.1.1 Companies sold

In fiscal year 2021, GEA sold the following companies via the sale of shares:

Business	Head office	Sale Date	Percentage of voting interest (%)
GEA Bock GmbH	Frickenhausen (Germany)	February 26, 2021	100,0
GEA Bock Czech s.r.o.	Stribro (Czech Republic)	February 26, 2021	100,0
GEA Refrigeration India Pvt. Ltd.	Vadodara (India)	February 26, 2021	100,0

On February 26, 2021, GEA completed the sale of the shares in the Bock Group. The Bock Group includes 100 percent of the shares in GEA Bock GmbH, located in Frickenhausen, Germany; GEA Bock Czech s.r.o., located in Stribro, Czech Republic; and GEA Refrigeration India Pvt. Ltd., located in Vadodara, India. All shares of the companies were sold in these transactions. In addition, all assets and liabilities of GEA Refrigeration Technology (Suzhou) Co., Ltd., located in Suzhou, China, belonging to the Bock Group, were transferred to the purchaser by way of an asset deal. On February 23, 2021, inventories of GEA Africa Proprietary Ltd., Midrand, South Africa, belonging to the Bock Group were transferred to the purchaser by way of another asset deal. Further assets and liabilities of GEA Westfalia Separator Australia Pty Ltd., located in Melbourne, Australia, which belong to the Bock Group, were transferred to the purchaser through another asset deal on November 29, 2021.

The three companies were previously allocated to the Heating & Refrigeration Technologies division. The Bock Group manufactures – among other applications – commercial compressors used for stationary and transport-based refrigeration products. As a result of the sale of the Bock Group, GEA's Heating & Refrigeration Technologies business is now focused on compressors used in industrial applications.

The purchase agreement was signed on September 21, 2020. All assets and liabilities of the Bock Group were classified and reported as “held for sale” as of December 31, 2020, with impairment losses of EUR 13,536 thousand (of which EUR 10,108 thousand related to allocated goodwill) also recognized as of the same reporting date. The sale resulted in deconsolidation losses of EUR 10,042 thousand for GEA, which are recognized in other expenses, plus additional expenses of EUR 8,090 thousand (of which EUR 2,737 thousand in 2021). The outgoing assets include allocated goodwill of EUR 1,193 thousand. In addition, cumulative expenses of EUR 7,718 thousand were allocated to this disposal group in other comprehensive income.

The additional expenses include transaction costs for consulting and legal fees, which are recognized in general and administrative expenses, as well as severance payments. The deconsolidation loss is a provisional amount calculated based on the payments actually made to date. Part of the purchase price was converted into a loan to the purchaser with a maximum term running up to December 31, 2023. The loan amounting to EUR 12,788 thousand is measured at amortized cost and reported in other financial assets. Overall, restructuring expenses of EUR 31,668 thousand (of which EUR 12,779 thousand in 2021) were recognized in connection with the sale of the Bock Group.

On February 18, 2022, an agreement was reached regarding the final purchase price. For further information, please refer to Note 11 to the consolidated financial statements.

4.1.2 Assets and liabilities sold

At the time of the sale, the following assets and liabilities were sold:

(EUR thousand)	2021
Property, plant and equipment	–16,429
Goodwill	–1,193
Other intangible assets	–10,281
Deferred taxes	–29
Inventories	–16,516
Trade receivables	–8,354
Income tax receivables	–421
Other current financial assets	–1,012
Cash and cash equivalents	–5,697
Total assets	**–59,932**
Non-current employee benefit obligations[1]	10,189
Non-current financial liabilities	438
Non-current contract liabilities	23
Deferred taxes	6
Current provisions	1,104
Current employee benefit obligations	1,637
Current financial liabilities	742
Trade payables	9,071
Current contract liabilities	166
Income tax liabilities	305
Other current liabilities	347
Total equity and liabilities	**24,028**
Net assets and liabilities	–35,903
Consideration received, satisfies in cash	25,860
Cash and cash equivalents disposed of	–5,697
Net cash inflows[2]	20,163

1) Reduced by expenses of EUR 7,718 thousand recognized in other comprehensive income.
2) Thereof EUR 12,338 thousand will be received at a later date after repayment of the loan.

4.2 Refrigeration contracting operations in Spain and Italy

4.2.1 Companies sold

In fiscal year 2021, GEA sold the following companies via the sale of shares:

Business	Head office	Sale Date	Percentage of voting interest (%)
GEA Refrigeration Ibérica S.A.	Alcobendas, Madrid (Spain)	October 29, 2021	100.0
GEA Refrigeration Italy S.p.A.	Castel Maggiore, Bologna (Italy)	October 29, 2021	100.0

On October 29, 2021, GEA completed the sale of its refrigeration contracting activities in Spain and Italy, which was contractually agreed in June 2021. All shares of the Spanish company GEA Refrigeration Ibérica S.A., Alcobendas (near Madrid), Spain, and the Italian company GEA Refrigeration Italy S.p.A., Castel Maggiore (near Bologna), Italy, were sold.

Both companies offer tailored refrigeration solutions for industrial customers and were previously allocated to the Heating & Refrigeration Technologies division. The transaction was carried out as part of GEA's portfolio optimization strategy. Following the sale of these two companies, GEA will focus on the sale of compressors and related equipment to the relevant system integrators and contracting companies in Spain and Italy.

Since the joint sale of the two companies generated a single economic effect, both disposals were accounted for as a single business transaction. The two companies represent a disposal group within the meaning of IFRS 5 and were classified as “held for sale” as of June 30, 2021. The purchase agreement was signed on June 28, 2021. Impairment losses of EUR 6,093 thousand (including allocated goodwill of EUR 3,682 thousand) were recognized in connection with the measurement of the disposal group. The sale resulted in deconsolidation losses of EUR 8,338 thousand in the year under review, which are recognized in other expenses, plus additional expenses of EUR 2,443 thousand (previous year: EUR 578 thousand). The additional expenses include transaction costs for consulting and legal fees, which are recognized in general and administrative expenses. The outgoing assets include goodwill of EUR 1,507 thousand. In addition, cumulative expenses of EUR 234 thousand were allocated to this disposal group in other comprehensive income.

A contingent consideration of EUR 1,119 thousand was agreed between GEA and the purchaser. Since GEA considers receipt of this consideration to be as good as certain, it was taken into account in determining the deconsolidation effect and a receivable of the same amount was recognized in other current financial assets. The deconsolidation effect represents a preliminary figure, which was calculated based on the cash payment actually received to date and taking into account the contingent consideration. Negotiations on the final purchase price have not yet concluded.

Overall, restructuring expenses of EUR 17,452 thousand (of which EUR 16,874 thousand in 2021) were recognized in connection with the sale of the two companies.

4.2.2 Assets and liabilities sold

At the time of the sale, the following assets and liabilities were sold:

(EUR thousand)	2021
Property, plant and equipment	–278
Goodwill	–1,507
Other intangible assets	–4
Other non-current financial assets	–31
Other non-current assets	–23
Deferred taxes	–1,463
Inventories	–3,003
Contract assets	–10,242
Trade receivables	–18,445
Income tax receivables	–476
Other current financial assets	–672
Other current assets	–53
Cash and cash equivalents	–19,117
Total assets	**–55,314**
Non-current provisions	2,268
Non-current employee benefit obligations*	428
Non-current financial liabilities	918
Current provisions	435
Current employee benefit obligations	2,263
Current financial liabilities	2,938
Trade payables	13,420
Current contract liabilities	7,210
Income tax liabilities	864
Other current liabilities	2,133
Total equity and liabilities	**32,877**
Net assets and liabilities	–22,437
Consideration received, satisfies in cash	12,981
Cash and cash equivalents disposed of	–19,117
Net cash outflows	–6,136
Contingent consideration	1,119

*) Reduced by expenses amounting to EUR 234 thousand reconized in other comprehensive income.

4.3 Sale of the “Barn” Business Unit in fiscal year 2020

The companies Royal de Boer Stalinrichtingen B.V., Leuwaarden, Netherlands, and GEA Farm Technologies Japy SAS, Saint-Apollinaire, France, which were allocated to the Farm Technologies division, were sold in fiscal year 2020. The purchase price negotiations were completed in fiscal year 2021. In connection with this, the purchaser paid back EUR 863 thousand to GEA, reducing the deconsolidation loss to EUR 5,194 thousand. In line with the treatment of the transaction in fiscal year 2020, the purchase price reimbursement was classified as restructuring income.

5. Consolidated Balance Sheet Disclosures: Assets

5.1 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**
Jan. 1, 2020					
Cost	739,838	527,976	433,394	55,170	**1,756,378**
Cumulative depreciation and impairment losses	−326,273	−397,738	−309,755	−1,887	**−1,035,653**
Carrying amount	**413,565**	**130,238**	**123,639**	**53,283**	**720,725**
Changes in 2020					
Additions	26,935	13,294	47,877	18,414	**106,520**
Disposals and reclassifications as held for sale	−13,560	−7,468	−5,699	−2,353	**−29,080**
Depreciation	−52,511	−25,681	−48,231	−1,274	**−127,697**
Impairment losses	–	–	–	−7,058	**−7,058**
Changes in consolidated group and business combinations	34	−38	−1	27	**22**
Currency translation	−10,560	−2,960	−2,412	−979	**−16,911**
Other changes	6,591	3,490	2,902	−31,713	**−18,730**
Carrying amount at Dec. 31, 2020	**370,494**	**110,875**	**118,075**	**28,347**	**627,791**
Jan. 1, 2021					
Cost	710,799	493,649	424,329	31,850	**1,660,627**
Cumulative depreciation and impairment losses	−340,305	−382,774	−306,254	−3,503	**−1,032,836**
Carrying amount	**370,494**	**110,875**	**118,075**	**28,347**	**627,791**
Changes in 2021					
Additions	58,872	16,387	44,294	32,552	**152,105**
Disposals and reclassifications as held for sale	−8,093	−1,118	−3,967	−1,548	**−14,726**
Depreciation	−47,650	−23,832	−47,962	−55	**−119,499**
Impairment losses	−788	−24	–	−293	**−1,105**
Changes in consolidated group and business combinations	–	–	–	60	**60**
Currency translation	8,942	2,648	1,094	455	**13,139**
Other changes	3,458	9,683	1,976	−23,772	**−8,655**
Carrying amount at Dec. 31, 2021	**385,235**	**114,619**	**113,510**	**35,746**	**649,110**
Dec. 31, 2021					
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**

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	Other IT Equipment	**Total**
Jan. 1, 2021							
Carrying amount	112,770	772	1,661	34,779	247	8,081	**158,310**
Changes in 2021							
Additions	42,897	386	773	18,645	191	8,438	**71,330**
Disposals and reclassifications as held for sale	–1,925	–10	–22	–1,528	–	–	**–3,485**
Depreciation	–36,119	–306	–1,085	–20,299	–111	–4,616	**–62,536**
Currency translation	1,998	7	15	311	–	3	**2,334**
Other changes	–5,081	–	199	–484	–	–	**–5,366**
Carrying amount at Dec. 31, 2021	**114,540**	**849**	**1,541**	**31,424**	**327**	**11,906**	**160,587**

The following amounts were recognized in the income statement in the reporting period:

(EUR thousand)	Jan. 01, 2021 - Dec. 31, 2021	Jan. 01, 2020 - Dec. 31, 2020
Interest expenses for Lease Liabilities	3,691	4,086
Expense from short-term leases	6,085	2,917
Expense for small-ticket-leases	2,165	3,182
Expense from variable lease payments	3,802	2,836

The statement of cash flows includes the following amounts:

(EUR thousand)	Jan. 01, 2021 - Dec. 31, 2021	Jan. 01, 2020 - Dec. 31, 2020
Total Cash-Out for Lease contracts	77,613	75,383

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 “reasonably certain“ that they will be exercised at the time the financial statements are prepared.

(EUR thousand)	2022	2023	2024	2025	2026
Possible additional payments due to the utilization of extension options	734	1,544	1,594	3,417	4,583
Possible additional payments due to unused termination options*	4,405	4,081	3,504	886	446

*) 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, 2026, additional lease payments of EUR 27,413 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 are prepared. The non-exercise of termination options that were deemed to be reasonably certain at the time the financial statements were prepared could result in additional lease payments of EUR 236 thousand for this period.

Lease concessions granted in connection with COVID-19 that are not presented as lease modifications relate to leases of real estate and vehicles. The resulting effects are recognized as negative variable lease payments and amount to EUR 205 thousand (previous year: EUR 305 thousand).

As a lessor, GEA leases out real estate. The underlying lease agreements were classified as operating leases (please see “Investment property”).

Investment property

The carrying amount of investment property amounted to EUR 823 thousand as of the reporting date (previous year: EUR 2,173 thousand). Of this, EUR 698 thousand (previous year: EUR 1,879 thousand) is allocable to land and EUR 125 thousand (previous year: EUR 294 thousand) to buildings. The decline in the carrying amount is primarily attributable to the sale of an investment property.

The fair value of investment property is EUR 3,300 thousand (previous year: EUR 6,280 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.

5.2 Goodwill

The following table shows the allocation of goodwill to the divisions bearing goodwill:

(EUR thousand)	BA Equipment	BA Solutions	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	Total
Carrying amount 12/31/2019	**881,827**	**630,354**	**–**	**–**	**–**	**–**	**–**	**1,512,181**
Reallocation	–881,827	–630,354	834,652	212,132	170,095	120,704	174,598	**–**
Reclassification as held for sale	–	–	–	–	–	–	–10,108	**–10,108**
Carrying amount 12/31/2020	**–**	**–**	**834,652**	**212,132**	**170,095**	**120,704**	**164,490**	**1,502,073**
Reallocation	–	–	12,146	–18,710	33,433	–10,065	–16,804	**–**
Reclassification as held for sale	–	–	–	–	–	–	–20,832	**–20,832**
Carrying amount 12/31/2021	**–**	**–**	**846,798**	**193,422**	**203,528**	**110,639**	**126,854**	**1,481,241**

Reclassifications in fiscal year 2020

As a result of the classification of the Bock Group allocated to the Heating & Refrigeration Technologies division as held for sale, the goodwill of EUR 10,108 thousand to be allocated to the disposal group was also classified as held for sale in the fiscal year 2020 and impaired in the full amount. For further details, please refer to the Notes to the Consolidated Financial Statements No. 4.

Reclassifications in fiscal year 2021

In the fiscal year 2021, additional goodwill of EUR 1,193 thousand was allocated to the Bock Group and classified as held for sale. This goodwill was disposed of upon completion of the sale of the Bock Group on February 26, 2021.

In connection with the sale of the refrigeration contracting and service business in Spain and Italy, goodwill of EUR 5,189 thousand allocated to the Heating & Refrigeration Technologies division was classified as held for sale and impaired in the amount of EUR 3,682 thousand. The remaining goodwill of EUR 1,507 thousand was disposed of upon completion of the sale of the refrigeration contracting and service business in Spain and Italy on October 29, 2021.

For further information on these transactions, please refer to Note 4 to the consolidated financial statements.

Remaining goodwill of EUR 14,450 thousand is attributable to the sale of the refrigeration contracting and service business in France and is classified as held for sale as of December 31, 2021. Further details can be found in the Notes to the Consolidated Financial Statements No. 5.9.

Impairment test

Due to the change of the reporting and monitoring structure in fiscal year 2020, the goodwill acquired through business combinations has been allocated to the divisions, which also represent the operating segments, as of January 1, 2020.

As of January 1, 2021, GEA made some minor adjustments to its divisional structure, so that individual companies whose activities related to two or more divisions, but were allocated to just one, are now broken down by their respective business activities. This reallocation concerned all five divisions. The Goodwill was reallocated based on relative values. All cash-generating units were tested for impairment as of January 1, 2021, immediately before the reallocation of the goodwill. The test did not identify a need for a goodwill impairment.

In terms of the annual impairment test on October 31, 2021 (previous year: October 31, 2020), 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 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 2021 fiscal year, this covers the budget for 2022 and two further planning years. The corresponding plan values were devised using a “bottom-up” approach. The Supervisory Board approved the planning for 2022 (budget) and took note of the medium-term planning for the years 2023 and 2024. 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 1.0 percent (previous year: 1.0 percent). The underlying growth rates do not exceed the average long-term growth rates for the markets in which GEA operates.

The planning assumes continued stable growth in the food and drink sales markets. The planning assumptions take into account, in particular, expectations regarding revenue trends and EBITDA before restructuring measures as well as future sales markets. 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. The effects of rising material costs and increased supply shortages were also taken into account in the measurement.

GEA continuously monitors the legislation related to climate change. To date, no legislation has been implemented that would affect the group’s accounting. 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 0.10 percent (previous year: -0.10 percent) and a market risk premium of 7.25 percent (previous year: 7.50 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 also applied to the cash-generating groups with goodwill.

Cash flows for the individual divisions are discounted using the following rates:

	10/31/2021		10/31/2020	
(%)	Discount rate (after-tax)	Discount rate (pre-tax)	Discount rate (after-tax)	Discount rate (pre-tax)
Separation & Flow Technologies	8.47	11.50	8.44	11.29
Liquid & Powder Technologies	8.36	11.11	8.64	11.46
Food & Healthcare Technologies	8.84	11.71	7.73	10.41
Farm Technologies	8.06	10.75	7.77	10.31
Heating & Refrigeration Technologies	7.58	9.72	8.12	10.21

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. As such, GEA was able to confirm the recoverability of the goodwill even on the basis of the latest capital market parameters as of December 31, 2021

5.3 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
Jan. 1, 2020						
Cost	120,729	288,080	128,857	168,724	321,092	**1,027,482**
Cumulative amortization and impairment losses	–22,449	–192,665	–108,359	–102,573	–172,114	**–598,160**
Carrying amount	**98,280**	**95,415**	**20,498**	**66,151**	**148,978**	**429,322**
Changes in 2020						
Additions	–	–	11,417	3,576	30,789	**45,782**
Disposals and reclassifications as held for sale	–9,283	–	–22	–512	–2,860	**–12,677**
Amortization	–956	–19,983	–8,642	–8,848	–30,783	**–69,212**
Impairment losses	–4,638	–1,867	–728	–484	–21,129	**–28,846**
Changes in consolidated group and business combinations	–	–	120	6	–	**126**
Currency translation	–386	–137	–1,306	97	367	**–1,365**
Other changes*	–	–	16,769	–1,011	2,957	**18,715**
Carrying amount at Dec. 31, 2020	**83,017**	**73,428**	**38,106**	**58,975**	**128,319**	**381,845**
Jan. 1, 2021						
Cost	107,692	278,812	151,793	157,196	344,480	**1,039,973**
Cumulative amortization and impairment losses	–24,675	–205,384	–113,687	–98,221	–216,161	**–658,128**
Carrying amount	**83,017**	**73,428**	**38,106**	**58,975**	**128,319**	**381,845**
Changes in 2021						
Additions	–	–	16,710	3,234	29,240	**49,184**
Disposals and reclassifications as held for sale	–	–	–1	–9	–69	**–79**
Amortization	–910	–10,102	–5,894	–9,622	–29,827	**–56,355**
Impairment losses	–969	–978	–997	–1,018	–	**–3,962**
Currency translation	726	19	39	513	336	**1,633**
Other changes*	–	–	4,440	958	3,856	**9,254**
Carrying amount at Dec. 31, 2021	**81,864**	**62,367**	**52,403**	**53,031**	**131,855**	**381,520**
Dec. 31, 2021						
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**

*) The Contract-based intangible assets contain a reclassification from the assets under construction amounting to EUR 3,675 thousand (prior year EUR 16,399 thousand).

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 milking and feeding, in particular, were capitalized. The additions in the Food & Healthcare Technologies division are largely due to developments in the areas of thermoforming and slicers.

Amortization of intangible assets in the amount of EUR 56,355 thousand in fiscal year 2021 (previous year: EUR 69,212 thousand) is reported in cost of sales and, where this relates to discontinued operations, in profit or loss from discontinued operations.

In fiscal year 2021, expenditure on research and development amounted to EUR 127,047 thousand (previous year: EUR 129,004 thousand). These figures include refunded expenses totaling EUR 13,020 thousand (previous year: EUR 13,974 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 73,653 thousand (previous year: EUR 73,376 thousand). These assets are company and product names of the 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.

For this purpose, as was the case in the previous year, the value in use 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 5.2).

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.

	10/31/2021			10/31/2020		
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	9.58	13.29	15,598	9.32	12.93
Imaforni (Food & Healthcare Technologies)	11,350	9.58	13.29	11,350	9.32	12.93
Hilge (Separation & Flow Technologies)	10,035	7.43	10.61	10,035	7.89	11.27
Aseptomag (Separation & Flow Technologies)	9,210	5.99	7.63	9,047	6.15	7.79
Procomac (Liquid & Powder Technologies)	8,067	8.86	12.29	8,059	9.61	13.33
Other	19,393	5.35-8.86	6.86-12.29	19,287	5.31-9.61	6.81-13.33
Total	**73,653**			**73,376**		

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 2022 and took note of the medium-term planning for the years 2023 and 2024. The royalty rate assumptions are derived from information already available and range between 0.5 percent and 1.0 percent (previous year: 0.0 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 did not lead to any impairment requirement in the fiscal year 2021. In the previous year, the impairment test produced an impairment of other brands in the amount of EUR 4,638 thousand, which was primarily attributable to the one brand (EUR 4,238 thousand) that is assigned to the Food & Healthcare Technologies division. This was written down in full. Accordingly, the recoverable amount – which corresponds to the fair value less costs of disposal – was EUR 0 thousand.

5.4 Other financial assets

Other financial assets are composed of the following items:

(EUR thousand)	12/31/2021	12/31/2020
Investments in unconsolidated subsidiaries	33,091	32,384
At-equity investments	5,506	5,195
Other Equity investments	244	244
Other securities	6,068	8,351
Receivables from subsidiaries and investment companies	2,316	9
Derivative financial instruments	134	343
Miscellaneous other financial assets	18,023	5,075
Other noncurrent financial assets	**65,382**	**51,601**
Receivables from subsidiaries and investment companies	12,193	11,189
Derivative financial instruments	4,452	4,837
Miscellaneous other financial assets	44,393	44,598
Other current financial assets	**61,038**	**60,624**
Total	**126,420**	**112,225**

Investments in companies accounted for using the equity method mainly consists of joint ventures.

Information on credit risks in connection with other financial assets and further information about derivative financial instruments can be found in section 3 of the Notes to the Consolidated Financial Statements.

5.5 Other assets

Other assets are composed of the following items:

(EUR thousand)	12/31/2021	12/31/2020
Prepaid expenses	2,837	2,390
Other receivables from tax authorities	1,311	209
Other noncurrent assets	**4,148**	**2,599**
Prepaid expenses	34,189	41,428
Other receivables from tax authorities	72,987	72,443
Miscellaneous other assets	47	7
Other current assets	**107,223**	**113,878**
Total	**111,371**	**116,477**

5.6 Inventories

Inventories are composed of the following items:

(EUR thousand)	12/31/2021	12/31/2020
Raw materials, consumables, and supplies	150,765	128,358
Work in progress	174,718	154,701
Assets for third parties under construction	13,984	13,347
Finished goods and merchandise	302,324	261,803
Advance payments	73,135	65,591
Cost to obtain a contract	–	13
Total	**714,926**	**623,813**

Inventories of EUR 2,820 million were recognized as an expense in fiscal year 2021 (previous year: EUR 2,906 million). Impairment losses on inventories were EUR 7,466 thousand in the reporting period (previous year: EUR 10,239 thousand). In the current reporting period, prior-year impairment losses on inventories amounting to EUR 4,465 thousand (previous year: EUR 13,255 thousand) were reversed due to changes in assessments. The impairment losses as well as the reversals were recognized in the cost of sales. The incremental costs of obtaining a contract included in the cost of sales amounted to EUR 13 thousand in the year under review (previous year: EUR 70 thousand).

5.7 Trade receivables

Trade receivables are composed of the following items:

(EUR thousand)	12/31/2021	12/31/2020
Trade receivables from third parties	668,988	725,508
Trade receivables from affiliated companies	13,472	18,583
Total	**682,460**	**744,091**

Trade receivables include receivables of EUR 1,044 thousand (previous year: EUR 3,370 thousand) that will not be realized until more than one year after the reporting date.

The total amount of impairments on trade receivables are EUR 67,560 thousand (previous year: EUR 80,744 thousand). Additional information concerning impairments related to trade receivables may be found in No. 3 of the Notes to the Consolidated Financial Statements.

5.8 Cash and cash equivalents

Cash and cash equivalents were composed of the following items as of the reporting date:

(EUR thousand)	12/31/2021	12/31/2020
Unrestricted cash	928,187	821,738
Restricted Cash	109	114
Total	**928,296**	**821,852**

Cash and cash equivalents comprise cash funds, demand deposits as well as commercial papers. As of December 31, 2021, cash and cash equivalents include commercial papers amount to EUR 90,000 thousand. These are highly liquid financial assets that are readily convertible to known amounts of cash at any time and are subject to only insignificant risk of changes in value. Restricted cash mainly consists of bank deposits.

During the year, the standard market interest rate for short-term bank deposits in the eurozone was -0.2 percent (previous year: 0.0 percent). The average interest rate at the end of the year was -0.3 (previous year: -0.2 percent).

5.9 Assets and liabilities held for sale

Assets held for sale are reported at a carrying amount of EUR 49,844 thousand (previous year: EUR 44,455 thousand) as of December 31, 2021. This relates firstly to the sale of the refrigeration contracting and service operations in France described below. Secondly, assets with a carrying amount of EUR 1,108 thousand and related liabilities of EUR 1,213 thousand were classified as held for sale in connection with the planned disposal of the metering, blending and calibration business activities of GEA Diessel GmbH.

Sale of refrigeration contracting and service operations in France

On October 25, 2021, GEA signed an agreement with the French company Syclef Holding SAS regarding the sale of 100 percent of the shares of GEA Refrigeration France SAS, Les Sorinières, France, which will be transferred as part of the share deal. GEA Refrigeration France, whose business includes the manufacture of tailored refrigeration solutions for industrial customers, is allocated to the Heating & Refrigeration Technologies division. The transaction does not affect GEA's compressor business in France, which retains its strategic importance and will be retained by GEA. The assets (incl. goodwill) of EUR 48,736 thousand and liabilities of EUR 32,561 thousand to be sold in the transaction form a disposal group and have been classified as "held for sale". In this context, goodwill amounting to EUR 14,450 thousand was allocated to the disposal group.

Cumulative expenses of EUR 1,193 thousand were allocated to this disposal group in other comprehensive income.

In the fiscal year 2021, expenses amounting to EUR 1,719 thousand were recognized in connection with this transaction and classified as restructuring expenses.

The transaction was closed on February 28, 2022.

The following assets and liabilities were classified as held for sale:

(EUR thousand)	12/31/2021
Property, plant and equipment	2,911
Goodwill	14,450
Deferred taxes	1,224
Non-current assets	**18,585**
Inventories	3,160
Contract assets	6,769
Trade receivables	17,999
Income tax receivables	1,510
Other current financial assets	565
Other current assets	146
Cash and cash equivalents	2
Current assets	**30,151**
Total assets*	**48,736**

(EUR thousand)	12/31/2021
Non-current employee benefit obligations	2,037
Non-current financial liabilities	922
Deferred taxes	5
Non-current liabilities	**2,964**
Current provisions	2,221
Current employee benefit obligations	3,909
Current financial liabilities	1,732
Trade payables	8,311
Current contract liabilities	8,124
Income tax liabilities	2,312
Other current liabilities	2,988
Current liabilities	**29,597**
Total liabilities*	**32,561**

*) Items do not include assets and liabilities to affiliated companies.

6. Consolidated Balance Sheet Disclosures: Equity and liabilities

6.1 Equity

Issued capital

The issued capital of EUR 513,753 thousand corresponds to the subscribed capital of EUR 520,376 thousand less the notional value of the repurchased shares of EUR 6,623 thousand.

Subscribed capital

The subscribed capital of GEA Group Aktiengesellschaft as of December 31, 2021 was EUR 520,376 thousand (previous year: EUR 520,376 thousand). The shares are bearer shares and are divided into 180,492,172 (previous year: 180,492,172) no-par value shares. All the shares are fully paid up.

As in the previous year, the shares have a notional value (rounded) of EUR 2.883 each (previous year: EUR 2.883).

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 dated April 19, 2018, in accordance with section 71(1) no. 8 of the Aktiengesetz (AktG – German Stock Corporation Act), GEA Group Aktiengesellschaft is authorized to purchase own shares up to a total of 10 percent of subscribed share capital. This authorization was exercised and a share buyback program was launched on August 12, 2021. It is set to run through the end of the 2022 fiscal year at the latest. The buyback is set to take place in two tranches. The buyback program started on August 16, 2021. From the start date of August 16, 2021 until December 31, 2021 a total of 2,297,033 no-par value shares corresponding to share capital of EUR 6,623 thousand was purchased as part of the share buyback program. This corresponds to some 1.27% of the share capital of GEA Group Aktiengesellschaft. The total value of shares acquired during the 2021 fiscal year amounts to EUR 93,754 thousand. Transaction costs amounting to EUR 38 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) 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.

Contingent capital

(EUR thousand)	12/31/2021	12/31/2020
Bonds with warrants and convertible bonds according Annual General Meeting resolution 16. April 2015	–	51,904
Bonds with warrants and convertible bonds according Annual General Meeting resolution 30. April 2021	52,000	–
Total	**52,000**	**51,904**

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 subscription 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 2021.

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 acquired treasury shares.

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

Accumulated other comprehensive income includes, among others, 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 417 thousand (previous year: EUR 418 thousand).

Capital management

GEA Group Aktiengesellschaft's key financial objective is to sustainably grow 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. Our 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. It 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 so as 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)	12/31/2021	12/31/2020
Liabilities to banks	–10,747	–167,701
Borrower's note loan	–251,967	–251,882
Lease liabilities	–165,816	–156,945
Cash and cash equivalents	928,296	821,852
Net liquidity (+)/Net debt (-)	**499,766**	**245,324**
Equity	**2,076,211**	**1,921,449**
Equity ratio	**35.3%**	**33.8%**
Gearing	–24.1%	–12.8%

Net liquidity rose by EUR 254,442 thousand in the course of the financial year, closing the year at EUR 499,766 thousand on December 31, 2021.

Since fiscal year 2021, GEA has also taken lease liabilities into account when calculating net debt. As a result, the previous year's figure for net liquidity of EUR 245,324 thousand is EUR 156,945 thousand lower than the figure of EUR 402,269 thousand published in the 2020 annual report.

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:

	2021		2020	
Agency	Rating	Outlook	Rating	Outlook
Moody's	Baa2	stable	Baa2	negative
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

6.2 Provisions

The following table shows the composition of and changes in provisions in 2021:

(EUR thousand)	Guarantees, warranties	Financial guarantee contracts	Litigation risks	Follow-up costs	Environ-mental protection, mining	Impending Losses	Other provisions	**Provisions**
Balance at Jan. 1, 2021	**76,086**	**2,413**	**9,913**	**49,923**	**103,351**	**3,001**	**95,746**	**340,433**
thereof non-current	9,165	–	1,701	1,031	101,151	31	19,683	**132,762**
thereof current	66,921	2,413	8,212	48,892	2,200	2,970	76,063	**207,671**
Additions	46,739	–	4,396	37,220	23,229	3,333	44,191	**159,108**
Utilization	–15,273	–147	–2,215	–17,791	–1,964	–704	–35,262	**–73,356**
Reversal	–11,172	–	–1,045	–13,309	–2,970	–961	–19,375	**–48,832**
Compounding and change in interest rate	–	–	–	–	1,245	–	1	**1,246**
Exchange differences	2,119	–	47	1,448	7	22	1,091	**4,734**
Reclassification as „held for sale“	–3,439	–	–327	–817	–	–17	–76	**–4,676**
Balance at Dec. 31, 2021	**95,060**	**2,266**	**10,769**	**56,674**	**122,898**	**4,674**	**86,316**	**378,657**
thereof non-current	9,680	–	2,342	2,280	120,725	–	7,160	**142,187**
thereof current	85,380	2,266	8,427	54,394	2,173	4,674	79,156	**236,470**

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 explicitly agreed under contract, product liability rules apply in many sales 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 settle most of the provisions for guarantees and warranties regularly in the coming 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. The changes in these provisions in fiscal year 2021 are due to utilization.

Litigation risks

Provisions are recognized for risks arising from expected or pending litigation against GEA companies if it is believed that there is likely to be an unfavorable outcome to the proceedings. Assessments by counsel for the Company or legal experts were used to determine the likelihood of such litigation. 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.

Based on knowledge acquired in fiscal year 2021, GEA adjusted its expectations regarding future cash outflows for commitments stemming from environmental protection and mining. In addition, the relevant valuation parameters of future cash outflows were adjusted in order to reflect current market conditions. These are the main reasons for the additions and reversals for environmental protection and mining obligations shown in the table, which almost exclusively impacted 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, 2021, other provisions included provisions for restructuring measures within the meaning of IAS 37 of EUR 2.4 million (previous year: EUR 1.7 million).

6.3 Employee benefit obligations

Employee benefit obligations comprise the following items:

(EUR thousand)	Section	12/31/2021	12/31/2020
Obligations under pension plans and supplementary healthcare benefits		784,733	842,346
thereof defined benefit pension plans	6.3.1	772,675	828,715
thereof obligations under supplementary healthcare benefits	6.3.1	11,889	13,499
thereof defined contribution pension plans	6.3.2	169	132
Other employee benefit obligations		2,090	2,475
Partial retirement		9,473	10,194
Jubilee benefits		10,507	10,565
Redundancy plan and severance payments		12,111	14,981
Other non-current obligations to employees		18,220	7,999
Non-current employee benefit obligations		**837,134**	**888,560**
Redundancy plan and severance payments		19,178	21,956
Outstanding vacation, flexitime/overtime credits		57,584	59,926
Bonuses		156,729	115,730
Other current obligations to employees		19,766	22,696
Current employee benefit obligations		**253,257**	**220,308**
Total employee benefit obligations		**1,090,391**	**1,108,868**

The increase in other non-current obligations to employees is largely due to the higher provisions for long-term variable remunerations. The rise in current employee benefit obligations is primarily attributable to bonuses.

As of December 31, 2021, provisions amounting to EUR 26,229 thousand (previous year: EUR 32,640 thousand) had been established for severance payments in connection with restructuring measures within the meaning of IAS 37, of which EUR 14,118 thousand is reported as current employee benefit obligations (previous year: EUR 17,743 thousand).

6.3.1 Obligations under defined benefit 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.

Furthermore, the information is presented including "assets and liabilities held for sale". Where reconciliation to items in the financial statements is required, this is presented in a separate line, reclassified as "held for sale".

All obligations were valued by actuaries as of December 31, 2021 and as of December 31, 2020.

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 granting 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 this is appropriate. In connection with this, GEA monitors developments on the human resources 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 part 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 annually.

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 size 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. These 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 scheme 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 established annually in accordance with legal requirements and spread 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 partly 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 established. If the plan is underfunded, the trustee prepares a funding plan to regulate the funding of the deficit, taking account of the actuary's recommendation 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:

	12/31/2021		12/31/2020	
(EUR thousand)	Germany	Other countries	Germany	Other countries
Present value of defined benefit obligation at beginning of fiscal year	**846,545**	**148,853**	**815,790**	**153,943**
Current service cost	15,623	2,876	14,604	2,881
Interest Cost from discounting unwinding on obligations	5,698	2,408	7,991	3,166
Employee contributions	–	388	–	402
Remeasurement of present value of obligation	−24,932	−6,972	42,091	5,818
Actuarial gains/ losses from changes in demographic assumptions	–	−648	–	−730
Actuarial gains/ losses resulting from changes in financial assumptions	−29,774	−5,558	39,899	8,815
Actuarial gains/ losses resulting from experience adjustments	4,842	−766	2,192	−2,267
Past service cost	–	968	–	1,223
Gains and losses from settlements	–	–	−930	–
Payments without settlements	−30,810	−11,756	−31,757	−10,116
Payments in respect of any settlements	–	–	−8,621	–
Transfer of assets	–	–	7,333	1,125
Changes in combined group due to acquisitions	−17,998	−553	–	−1,228
Other changes in combined group	–	–	44	–
Currency translation	–	7,593	–	−8,361
Present value of defined benefit obligation at end of fiscal year	**794,126**	**143,805**	**846,545**	**148,853**
Fair value of plan assets at beginning of the fiscal year	**44,772**	**92,003**	**42,423**	**91,754**
Interest income on plan assets	323	1,570	439	2,009
Employer contributions	6,024	3,217	4,613	6,347
Employee contributions	–	388	–	402
Remeasurement: return from plan assets in excess/ shortage of interest income	4,951	3,956	1,003	4,634
Payments without settlements	−814	−9,192	−452	−7,923
Payments in respect of any settlements	–	–	−6,556	–
Transfer of assets	–	–	3,302	319
Changes in combined group due to acquisitions	−163	–	–	–
Currency translation	–	5,734	–	−5,539
Fair value of plan assets at the end of fiscal year	**55,093**	**97,676**	**44,772**	**92,003**
Funded status/ Net carrying amount	**739,033**	**46,129**	**801,773**	**56,850**
Reclassification as held for sale	−1,138	−2,037	−18,513	–
Net carrying amount	**737,895**	**44,092**	**783,260**	**56,850**
thereof net asset	–	2,565	–	2,113
thereof net liability	737,895	46,657	783,260	58,963

Changes to the net carrying amount of the defined benefit obligations from defined benefit plans and supplementary healthcare benefits for fiscal years 2021 and 2020 are as follows:

	12/31/2021		12/31/2020	
(EUR thousand)	Germany	Other countries	Germany	Other countries
Net carrying amount at beginning of fiscal year	**801,773**	**56,850**	**773,367**	**62,189**
Changes through profit or loss	20,998	4,682	21,226	5,261
Current service cost	15,623	2,876	14,604	2,881
Past service cost	–	968	–	1,223
Gains and losses on settlements	–	–	–930	–
Net interest on net defined benefit liability	5,375	838	7,552	1,157
Changes through OCI	–29,883	–10,928	41,088	1,184
Return from plan assets in excess interest income	–4,951	–3,956	–1,003	–4,634
Actuarial gains/ losses from changes in demographic assumptions	–	–648	–	–730
Actuarial gains/ losses resulting from changes in financial assumptions	–29,774	–5,558	39,899	8,815
Actuarial gains/ losses resulting from experience adjustments	4,842	–766	2,192	–2,267
Cash-effective changes	–36,020	–5,781	–37,983	–8,540
Employer contributions	–6,024	–3,217	–4,613	–6,347
Payments without settlements	–29,996	–2,564	–31,305	–2,193
Payments in respect of any settlements	–	–	–2,065	–
Other changes	–17,835	1,306	4,075	–3,245
Transfer of assets	–	–	4,031	806
Changes in combined group due to acquisitions	–17,835	–553	–	–1,228
Other changes in combined group	–	–	44	–
Currency translation	–	1,859	–	–2,823
Funded status/ Net carrying amount	**739,033**	**46,129**	**801,773**	**56,850**
Reclassification as held for sale	–1,138	–2,037	–18,513	–
Net carrying amount	**737,895**	**44,092**	**783,260**	**56,850**

The following overview shows the net carrying amount broken down into plans with and without plan assets:

	12/31/2021		12/31/2020	
(EUR thousand)	Germany	Other countries	Germany	Other countries
Present value of funded obligations	242,606	127,208	241,580	129,176
Fair value of plan assets	55,093	97,676	44,772	92,003
Funded status/ Net carrying amount of funded obligations	**187,513**	**29,532**	**196,808**	**37,173**
Present value of unfunded obligations	551,520	16,597	604,965	19,677
Funded status/ Net carrying amount of unfunded obligations	**551,520**	**16,597**	**604,965**	**19,677**
Funded status/ Net carrying amount	**739,033**	**46,129**	**801,773**	**56,850**
Reclassification as held for sale	–1,138	–2,037	–18,513	–
Net carrying amount	**737,895**	**44,092**	**783,260**	**56,850**

As in the previous year, no asset ceiling in accordance with IAS 19.64 (b) applies. In addition, there are no reimbursement claims within the meaning of IAS 19.116.

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:

	12/31/2021		12/31/2020	
(EUR thousand)	Germany	Other countries	Germany	Other countries
Active employees	270,282	54,418	287,878	61,631
Vested terminated employees	127,044	26,563	139,989	27,190
Pensioners	396,800	62,824	418,678	60,032
Total	**794,126**	**143,805**	**846,545**	**148,853**

Plan assets

The plan assets used to cover the pension obligations were as follows at the respective reporting dates:

(Percent)	12/31/2021 Germany	12/31/2021 Other countries	12/31/2020 Germany	12/31/2020 Other countries
Quoted prices in active marktes	62.9	87.4	53.7	86.1
Equity instruments	–	37.7	–	35.2
Debt instruments	62.9	42.4	53.7	45.5
Real estate	–	0.1	–	–
Other	–	7.2	–	5.4
No quoted prices in active marktes	37.1	12.6	46.3	13.9
Equity instruments	–	1.3	–	1.1
Debt instruments	–	0.8	–	0.6
Real estate	–	0.1	–	0.1
Insurance	36.3	10.3	45.2	11.9
Other	0.8	0.1	1.1	0.2
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 to 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 framework. 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 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 risk. 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 2022, EUR 5,999 thousand is expected to be added to the plan assets of German pension plans and EUR 4,418 thousand to plans outside Germany.

The actual return on plan assets in 2021 was EUR 10,800 thousand (previous year: EUR 8,085 thousand).

Actuarial assumptions

As of the relevant 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.

(Percent)	12/31/2021 Germany	12/31/2021 Other countries	12/31/2020 Germany	12/31/2020 Other countries
Discount factor	1.10	2.03	0.70	1.59
Inflation	2.00	1.05	1.70	1.09
derived: wage and salary growth rate	3.00	1.31	2.70	1.31
derived: pension growth rate	1.74	–	1.48	0.25
derived: growth rate in cost of health care benefits	3.75	6.61	3.45	6.61

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 established 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 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 increases in Germany is also determined based on inflation, provided that the pension 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 costs of supplementary healthcare benefits in Germany equates to forecast inflation plus a growth rate based on historical data. Based on this data, the growth rate is not expected to change in the future.

Klaus Heubeck's 2018G mortality tables were used as a basis for measuring all German plans as of December 31, 2021. On this basis, the life expectancy of a 65-year-old pensioner as of the reporting date is 20.66 years for men and 24.08 years for women (previous year: 20.51 years/23.96 years). 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)	12/31/2021	
Increase (+)/ Decrease (-) of DBO	Germany	Other countries
Increase of discount factor by 50 basis points	–58,180	–8,324
Decrease of inflation by 25 basis points	–16,917	–1,389

A one-year increase in life expectancy results in an increase of around 4.35 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)	2022	2023	2024	2025	2026	2027 - 2031
German plans	34,622	32,523	33,453	35,821	33,245	169,763
Foreign plans	9,655	7,497	7,825	7,578	8,383	40,667

The average weighted duration of pension obligations and supplementary healthcare benefits is:

	12/31/2021		12/31/2020	
(Years)	Germany	Other countries	Germany	Other countries
Duration	15.5	12.2	16.1	12.5

6.3.2 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 21,609 thousand were made in fiscal year 2021 (previous year: EUR 18,074 thousand). Contributions of EUR 71,518 thousand were made to state pension insurance systems (previous year: EUR 69,108 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 obligation on the part of the employers 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 600,000 beneficiaries, of whom around 500 belong to GEA. Contributions amounting to EUR 4,229 thousand (previous year: EUR 3,121 thousand) were made to this multi-employer pension plan in fiscal year 2021.

The other joint pension plan has around 1.4 million beneficiaries, of whom around 500 belong to GEA. Contributions amounting to EUR 3,985 thousand (previous year: EUR 3,802 thousand) were made to this plan in fiscal year 2021.

6.3.3 Share-based payment

Share-based payments in fiscal year 2021 for the group as a whole totaled EUR 7,790 thousand (previous year: EUR 2,864 thousand). The carrying amount of liabilities arising from share-based payment transactions in the group as a whole amounted to EUR 14,699 thousand as of December 31, 2021 (previous year: EUR 6,909 thousand).

Long-term share price component

The long-term share price component was introduced as part of the revision of the variable remuneration system for Executive Board members in fiscal year 2012. The final tranche of the program was issued in fiscal year 2019. The payout from the long-term share price component is measured over a three-year performance period that includes the relevant fiscal year and the two subsequent years.

Performance is measured by comparing the performance of the GEA share price, adjusted for dividends, with the performance of the STOXX® Europe TMI Industrial Engineering (TMI IE) index over a three-year performance period. This comparison is computed on the basis of the respective arithmetic mean closing prices on the last 20 trading days preceding the start of the three-year performance period. 100 percent of the target is achieved if the performance of the arithmetic mean of the GEA share daily closing prices is equal to 100 percent of the corresponding TMI performance over the three-year performance period. In the event of outperformance greater than 100 percent, the amount paid out rises to a maximum of 300 percent of the target amount. If the increase in GEA's share price over the three-year period is less than 100 percent of the growth in the TMI IE, the amount payable is reduced accordingly down to a performance level of 75 percent. The degree of target achievement increases or decreases by four percent for each percentage point greater than or less than a performance level of 100 percent. The total degree of target achievement and thus the payout level for the long-term share price component is limited to 300 percent of this target amount (cap).

The performance period for the last tranche of the long-term share price component ended on December 31, 2021. This tranche is due to be paid out in fiscal year 2022. The amount of the payout will be EUR 120 thousand. There was no payout in 2021 (previous year: EUR 15 thousand) since the degree of target achievement of the 2018 tranche, which was due to be paid out in 2021, was –5.1 percent at the end of the performance period.

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.

The Performance Shares are paid out at the end of a three-year performance period. 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 measures and transactions, determine how many Performance Shares are ultimately rewarded.

The TSR performance of all peer companies is ranked for this purpose, 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, 93,206 Performance Shares have been granted on a preliminary basis for the 2019 tranche, 110,439 for the 2020 tranche and 104,706 for the 2021 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 (see the Remuneration Report for further details).

Taking into account the fair value as of December 31, 2021 of EUR 12,990 thousand (previous year: EUR 6,564 thousand) for the 2019, 2020 and 2021 tranches, calculated using a Monte Carlo simulation, the group as a whole incurred an expense of EUR 6,425 thousand in fiscal year 2021 (previous year: EUR 2,647 thousand).

Global Incentive Plan

Starting 1 January 2020, a long-term remuneration program in the form of a cash-settled share-based payment plan called the “GEA Incentive Program” was launched for members of the Global Executive Committee, including the heads of the divisions and sales regions as well as the head of Human Resources. This program applies exclusively to the years 2020 to 2022.

Under the program, participants are awarded an allocation of Performance Share Units equal in value to a virtual initial award at the beginning of the performance period. To participate in the plan, managers must personally invest in shares of GEA Group Aktiengesellschaft. The number of ordinary GEA Group Aktiengesellschaft shares to be held over the three-year performance period is determined by dividing the required amount of personal investment by the average daily closing price of ordinary GEA Group Aktiengesellschaft shares in the first quarter of the relevant grant year.

The Performance Share Units are paid out once the three-year performance period has expired. The payment is calculated based on the virtual initial award multiplied by the performance factor, which is calculated as the ratio of the respective average daily closing price of ordinary GEA Group Aktiengesellschaft shares in the final quarter of the last calendar year of the respective performance period (“End Price”) and the first quarter of the first calendar year of the respective performance period (“Starting Price”). The amount of the payout is limited to 300 percent of the virtual initial award. Payment is only made if the share price at the end of the performance period is higher than the share price at the beginning.

Since the start of issuance, 35,986 Performance Shares have been granted on a preliminary basis for the 2020 tranche and 32,770 for the 2021 tranche.

The vesting period of the Global Incentive Program is the full three-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 1,590 thousand as of December 31, 2021 (previous year: EUR 241 thousand). The Global Incentive Program resulted in an expense of EUR 1,349 thousand (previous year: EUR 241 thousand) for the group as a whole in fiscal year 2021.

6.4 Financial liabilities

Financial liabilities as of December 31, 2021, were composed of the following items:

(EUR thousand)	12/31/2021	12/31/2020
Borrower's note loan	249,824	249,738
Liabilities to banks	412	150,601
Lease liabilities	110,166	100,765
Liabilities from derivatives	1,602	28
Other financial liabilities	11,813	17,692
Noncurrent financial liabilities	**373,817**	**518,824**
Borrower's note loan	2,143	2,144
Liabilities to banks	10,335	17,100
Lease liabilities	55,650	56,180
Liabilities to subsidiaries and investment companies	33,901	30,833
Liabilities to employees and officers	19,620	20,092
Liabilities from derivatives	11,175	6,659
Other financial liabilities	47,919	60,801
Current financial liabilities	**180,743**	**193,809**
Total financial liabilities	**554,560**	**712,633**

The financing of GEA as of December 31, 2021 mainly consisted of the following items:

(EUR thousand)	Carrying amount 12/31/2021	Carrying amount 12/31/2020	Notional value 12/31/2021	Fair value 12/31/2021	Interest basis	Maturity
Borrower's note loan - tranche I	100,781	100,741	100,000	102,104	fix	February 26, 2023
Borrower's note loan - tranche II	101,120	101,092	100,000	104,760	fix	February 26, 2025
Borrower's note loan - tranche III	28,036	28,025	28,000	28,222	variable	February 26, 2023
Borrower's note loan - tranche IV	22,030	22,024	22,000	22,508	variable	February 26, 2025
European Investment Bank - tranche I	–	50,000	–	–	variable	December 17, 2025
European Investment Bank - tranche II	–	100,000	–	–	variable	March 31, 2027
Bilateral credit lines	10,747	17,701	10,436	10,747	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

Liabilities to banks

On December 30, 2021 GEA fully repaid the loan of the European Investment Bank prior to the original maturity.

Transaction costs for unused credit lines as of the end of the year are allocated on a straight-line basis over the term.

GEA has undertaken in the loan agreements to comply with a certain covenant. Compliance with the covenant must be reviewed at the end of each quarter. The covenant was met as of December 31, 2021.

Liabilities to banks totaling EUR 640 thousand (previous year: EUR 827 thousand) were secured as of December 31, 2021.

Cash credit and guarantee credit lines

Including the syndicated credit line, the group as a whole had cash credit lines of EUR 988,125 thousand as of December 31, 2021 (previous year: EUR 1,430,967 thousand). Of this amount, cash credit lines of EUR 727,689 thousand (previous year: EUR 1,013,793 thousand) are unutilized (see section 3 of the Notes to the Consolidated Financial Statements). In addition, guarantee credit lines for the performance of contracts, advance payments and warranty obligations of EUR 1,096,317 thousand (previous year: EUR 1,131,314 thousand) were available to the group as a whole, of which EUR 685,049 thousand (previous year: EUR 710,242 thousand) has not been utilized.

Derivative financial instruments

Disclosures related to derivative financial instruments may be found in section 3 of the Notes to the Consolidated Financial Statements.

Other financial liabilities

As of the current reporting date and the previous year, no other financial liabilities are secured. The prior-year figure has been adjusted.

6.5 Trade payables

Trade payables were as follows as of December 31, 2021:

(EUR thousand)	12/31/2021	12/31/2020
Trade payables to third parties	719,738	662,544
thereof from supply chain financing arrangements	14,290	–
Trade payables to affiliated companies	5,825	4,250
Total	**725,563**	**666,794**

Trade payables of EUR 725,467 thousand (previous year: EUR 666,794 thousand) are due within one year. As of the reporting date, trade payables with a remaining term of more than one year amounted to EUR 96 thousand (previous year: EUR 0 thousand).

As of the current reporting date and the previous year, no trade payables are secured. The prior-year figure has been adjusted.

6.6 Other liabilities

Other liabilities as at December 31, 2021, comprised the following items:

(EUR thousand)	12/31/2021	12/31/2020
Other noncurrent liabilities	**1,129**	**875**
Other liabilities from tax	61,696	62,235
Liabilities relating to social security	13,349	15,748
Deferred income	5,440	5,712
Other current liabilities	**80,485**	**83,695**
Total other liabilities	**81,614**	**84,570**

7. Consolidated Income Statement Disclosures

7.1 Revenue

Revenue is composed of the following items:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
From construction contracts	1,901,748	1,819,767
From components business	1,192,167	1,255,763
From service agreements	1,608,990	1,559,524
Total	**4,702,905**	**4,635,054**

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 9.1 of the Notes to the Consolidated Financial Statements for further information).

Account balances

The table below provides information on trade receivables, contract assets and contract liabilities arising from contracts with customers.

(EUR thousand)	12/31/2021	12/31/2020
Trade receivables	682,460	744,091
Trade receivables included in assets held for sale	17,999	789
Contract assets	335,550	348,335
Contract assets included in assets held for sale	6,769	–
Contract liabilities	766,161	682,351
Contract liabilities included in assets held for sale	8,124	270

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 due within 30 days as a rule.

(EUR thousand)	12/31/2021	12/31/2020
Capitalized production cost of construction contracts	3,111,359	2,980,705
plus net gain from construction contracts	600,893	560,494
less progress billings	–3,685,686	–3,527,153
less advance payments received and invoiced on construction contracts	–179,259	–135,559
less impairment	–9,433	–8,613
Reclassification credit balance	497,676	478,461
Total contract assets	**335,550**	**348,335**

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)	12/31/2021	12/31/2020
Advance payments for orders	228	86
Non-current contract liabilities	**228**	**86**
Advance payments for orders	268,257	203,804
Gross amount due to customers for contract work	497,676	478,461
Current contract liabilities	**765,933**	**682,265**
Total contract liabilities	**766,161**	**682,351**

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 250,316 thousand (previous year: EUR 243,792 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)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Transfer from contract assets recognized at the beginning of the period to trade receivables	–303,568	–340,416
Due to changes in measure of progress	–	–667
Due to contract modifications	2,705	470
Due to deconsolidation of subsidiaries	–10,242	–
Due to impairment	–820	–3,373

In the current reporting period, impairments on contract assets amounting to EUR 1,521 thousand (previous year: EUR 539 thousand) were reversed.

During the year under review, the following changes had a material effect on contract liabilities:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Revenue recognized that was included in contract liability balance at the beginning of the period	–579,918	–534,414
Due to deconsolidation of subsidiaries	–7,399	–

In the 2021 fiscal year, revenues in connection with performance obligations satisfied either fully or in part in earlier reporting periods amounted to EUR 1,905 thousand (previous year: EUR 4,410 thousand). This was due to contract modifications.

Contract assets comprise performances in the amount of EUR 18,930 thousand (previous year: EUR 22,239 thousand), for which the invoicing is delayed as of December 31, 2021.

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, 2021:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Revenue recognition < 1 year	2,469,516	2,145,343
Revenue recognition > 1 year	315,922	153,113
Total	**2,785,438**	**2,298,456**

Performance obligations

The group’s revenues are founded on the performance obligations summarized below:

Construction contracts

GEA Group 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 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 arrangements, 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 6.2 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 modular 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 take delivery of 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 6.2 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 6.2 of the Notes to the Consolidated Financial Statements for further information).

7.2 Other income

Other income is composed of the following items:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Exchange rate gains	266,839	341,846
Gains on the measurement of foreign currency derivatives	74,036	69,095
Rental and lease income	1,407	1,978
Income from disposal of non-current assets	5,555	1,528
Income from compensation payments and cost reimbursements	6,299	1,527
Miscellaneous other income	34,117	37,666
Total	**388,253**	**453,640**

7.3 Other expenses

Other expenses are composed of the following items:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Exchange rate losses	289,964	324,598
Losses on the measurement of foreign currency derivatives	57,288	85,813
Goodwill impairment	3,682	10,108
Expenses on the disposal of consolidated subsidiaries	17,517	6,227
Losses on the disposal of non-current assets	702	1,191
Cost of money transfers and payment transactions	1,004	1,084
Miscellaneous other expenses*	9,685	36,001
Total	**379,842**	**465,022**

*) Include expenses for legal disputes.

The expenses recognized in the reporting year from the disposal of consolidated companies are attributable to the companies GEA Bock GmbH, GEA Bock Czech s.r.o. und GEA Refrigeration India Pvt. Ltd., which were sold on February 26, 2021, and to GEA Refrigeration Ibérica S.A. und GEA Refrigeration Italy S.p.A., which were sold on October 29, 2021. This gave rise to restructuring expenses totaling EUR 29,653 thousand (previous year: EUR 17,431 thousand), of which EUR 22,140 thousand (previous year: EUR 6,227 thousand) is recognized in other expenses. This includes a deconsolidation loss of EUR 18,380 thousand (previous year: EUR 6,057 thousand). Most of the remaining restructuring expenses are recognized in general and administrative expenses. The corresponding expenses incurred in the previous year resulted entirely from the disposal of Royal De Boer Stalinrichtingen B.V. and GEA Farm Technologies Japy SAS. The purchase price for these two companies was finally negotiated in fiscal year 2021, which led to a reduction in expenses on disposal of consolidated subsidiaries and corresponding restructuring income of EUR 863 thousand.

The goodwill impairment relates to the portion of goodwill of the Heating & Refrigeration Technologies division allocated to the disposal group comprising the companies GEA Refrigeration Ibérica S.A. and GEA Refrigeration Italy S.p.A. For further information, please refer to No. 4 of the Notes to the Consolidated Financial Statements.

7.4 Presentation of selected income and expenses by cost type

Cost of materials

The cost of materials increased by EUR 15,586 thousand in the reporting period to EUR 2,156,141 thousand (previous year: EUR 2,140,555 thousand). The cost of materials was 45.3 percent of gross revenue* and was therefore lower than the previous year's figure of 46.1 percent.

Personnel expenses

Personnel expenses increased by EUR 93,387 thousand in 2021 to EUR 1,510,930 thousand (previous year: EUR 1,417,543 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 1,243,691 thousand (previous year: EUR 1,160,504 thousand) as well as social security contributions and expenses for post-employment benefits of EUR 267,302 thousand (previous year: EUR 261,730 thousand). Personnel expenses were reduced in the 2021 fiscal year by changes in employee benefit obligations which were deferred in accordance with IAS 37 for restructuring measures in the amount of EUR 1,866 thousand (previous year: EUR 13,305 thousand) and government grants of EUR 63 thousand (previous year: EUR 4,691 thousand). The ratio of personnel expenses to gross revenue* thus increased to 31.7 percent (previous year: 30.5 percent).

Depreciation, amortization and impairment losses

Depreciation, amortization, and impairment losses totaling EUR 180,921 thousand (previous year: EUR 232,813 thousand) were charged on property, plant and equipment, investment property and intangible assets, including goodwill, in the reporting period. Impairment losses totaling EUR 6,093 thousand were recognized (previous year: EUR 22,635 thousand) in connection with the classification as "held for sale". Of this amount, EUR 6,093 thousand is attributable to the two sold companies GEA Refrigeration Ibérica S.A. and GEA Refrigeration Italy S.p.A. For the most part, depreciation, amortization, and impairment losses are largely included in the cost of sales or, in the case of goodwill, in other expenses.

Impairments on non-derivative financial assets excluding trade receivables amounted to EUR 2,558 thousand in the reporting period (previous year: EUR 1,700 thousand). Of this amount, EUR 2,558 thousand (previous year: EUR 1,700 thousand) was attributable to non-current financial assets. Impairment losses on equity investments and marketable securities are contained in the financial expenses item. In the current reporting year, reversals of impairment losses on current financial assets were recognized in the amount of EUR 843 thousand (previous year: EUR 1,700 thousand). Inventories were adjusted in the amount of EUR 7,466 thousand (previous year: EUR 10,239 thousand). These impairment losses and the remaining impairment losses were recognized in cost of sales.

* Gross revenue consists of sales, increase or decrease in finished goods and work in process and other own work capitalized.

7.5 Financial and interest income

Other financial income

Financial income comprises the following items:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Income from reversal of impairment losses on financial assets	843	1,700
Income from at-equity investments	1,536	1,113
Income from other equity investments	2,266	684
thereof from unconsolidated subsidiaries	2,242	660
Total	**4,645**	**3,497**

The Income from at-equity investments are related to income from joint ventures.

Interest income

Interest and similar income is composed of the following items:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Interest income on receivables, cash investments, and marketable securities	3,734	2,418
thereof to affiliated companies	271	278
Interest income from changes in interest rates other provisions	878	815
Other interest income	3,057	1,329
Total	**7,669**	**4,562**

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 IFRS standards:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Financial assets measured at amortized cost	3,734	2,418
Financial assets not measured in accordance with IFRS 9	3,935	2,144
Total	**7,669**	**4,562**

7.6 Financial and interest expenses

Other financial expenses

Financial expenses are composed of the following items:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Impairment loss on equity investments in unconsolidated subsidiaries	2,558	1,700
Losses transferred under profit and loss transfer agreements	1,945	2,852
Loss on net monetary positions (hyperinflation)	948	827
Total	**5,451**	**5,379**

Interest expense

Interest and similar expenses comprised the following items:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Interest expenses on liabilities to banks	5,169	5,138
Interest expenses on lease liability	3,691	4,086
Interest cost from discount unwinding on pension and medical care obligations	6,213	8,721
Interest cost from discount unwinding on discounted provisions and other employee benefit obligations	7,548	829
Interest cost from changes in interest rates on other provisions	–	1,163
Other interest expenses	6,701	8,701
thereof to affiliated companies	3	54
Total	**29,322**	**28,638**

The following table shows the interest expense on financial instruments broken down by IFRS 9 measurement category, along with the interest expense on liabilities measured in accordance with other requirements:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Financial liabilities at amortized cost	11,460	13,169
Financial liabilities not measured in accordance with IFRS 9	17,862	15,469
Total	**29,322**	**28,638**

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. Where no direct relationship can be established, the average interest rate for group borrowings in the current period is used as the capitalization rate due to GEA's central financing function. This amounted to 1.2 percent in fiscal year 2021 (previous year: 1.3 percent). Interest income generated on advance payments and progress payments received reduces the cost of the asset. No material borrowing costs were capitalized in fiscal year 2021 or in the previous year.

In fiscal year 2021, expenses totaling EUR 1,004 thousand (previous year: EUR 1,084 thousand) were incurred for fees that were not included in the calculation of the effective interest rate.

Due to hyperinflation, business activity in Argentina is no longer accounted for on a historical cost basis, but adjusted for the effects of inflation. The consumer price index IPC (Índice de precios al consumidor) is used for this purpose. As of the reporting date, the applicable index value was 1,988.8 (January 1, 2021: 1,317.6). In the previous year, the applicable index value was 1,317.6 as of the reporting date (January 1, 2020: 967.8).

7.7 Income taxes

Income taxes for continuing operations are composed of the following items:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Current taxes	98,463	72,300
Deferred taxes	–39,942	16,808
Total	**58,521**	**89,108**

The expected tax expense is calculated using the tax rate of 30.00 percent (previous year: 30.00 percent) applicable to German group companies. This includes an average trade tax rate of 14.17 percent (previous year: 14.17 percent) in addition to the uniform corporate income tax rate of 15.00 percent (previous year: 15.00 percent) and the solidarity surcharge of 0.825 percent (previous year: 0.825 percent). The following table shows a reconciliation of the expected tax rate to the effective tax rate of 16.34 percent (previous year: 45.21 percent):

	01/01/2021 - 12/31/2021		01/01/2020 - 12/31/2020	
	(EUR thousand)	(%)	(EUR thousand)	(%)
Profit before tax	**358,052**		**197,108**	
Expected tax expense	107,416	30.00	59,132	30.00
Non-tax-deductible expense	16,445	4.59	19,516	9.90
Tax-exempt income	–7,295	–2.04	–6,108	–3.10
Change in valuation allowances	–48,171	–13.45	14,951	7.59
Change in tax rates	–664	–0.19	1,627	0.83
Foreign tax rate differences	–15,128	–4.23	–11,416	–5.79
Taxes relating to other periods	–4,896	–1.37	1,650	0.84
Other	10,814	3.03	9,756	4.94
Income tax and effective tax rate	**58,521**	**16.34**	**89,108**	**45.21**

The “Non-tax-deductible expense” of EUR 16,445 thousand (previous year: EUR 19,516 thousand) include, among other things, tax effects on the losses from the sale of the companies of Bock Group (EUR 3,000 thousand) and the sale of the refrigeration contracting and service business in Spain and Italy (EUR 1,991 thousand). Furthermore, this item includes a tax effect of EUR 914 thousand resulting from the classification of the Spanish and Italian companies as “held for sale” due to the impairment of the goodwill allocated to them. In the previous year, this item included in particular a tax effect of EUR 3,032 thousand due to an impairment of the goodwill allocated to the Bock disposal group in connection with their classification as “held for sale”.

The change in valuation allowances of EUR -48,171 thousand (previous year: EUR 14,951 thousand) is mainly attributable to a reassessment of the recoverable amount of deferred tax assets on tax loss carryforwards. Due to the positive outlook for future business development, GEA expects to increase the usability of tax loss carryforwards, particularly in the USA (EUR -24,189 thousand) and Germany (EUR -31,159 thousand).

The effect of the change in tax rates amounting to EUR -664 thousand (previous year: EUR 1.627 thousand) is mainly due to the increase in tax rates in the United Kingdom.

The taxation differences outside Germany of EUR -15,128 thousand (previous year: EUR -11,416 thousand) result from different tax rates outside Germany compared with the German tax rate of 30.00 percent. The tax rates for foreign companies vary between 0.00 percent (UAE) and 35.00 percent (Argentina). Significant tax income is generated in Denmark, Russia and China.

Taxes relating to other periods amounted to EUR -4,896 thousand (previous year: EUR 1,650 thousand); they comprise prior-period current taxes of EUR 326 thousand and prior-period deferred taxes of EUR -5,222 thousand.

Other reconciliation effects of EUR 10,814 thousand (previous year: EUR 9,756 thousand) mainly include withholding tax and other foreign tax expense of EUR 9,613 thousand (previous year: EUR 11,121 thousand).

Deferred taxes as of December 31, 2021 changed as follows:

	01/01/2021 Net	Effects recognized in profit and loss	Effects recognized in OCI	Other*	12/31/2021 Net	Deferred tax assets	Deferred tax liabilities
(EUR thousand)							
Property, plant and equipment	–47,483	–2,734	–	469	–49,749	4,756	54,505
Goodwill	–28,589	1,629	–	–840	–27,800	4,250	32,050
Other intangible assets	–77,352	2,825	–	–62	–74,589	108	74,697
Other non-current financial assets	–3,326	–1,553	–	–34	–4,913	464	5,377
Other non-current assets	–53	–39	–	–	–92	–	92
Non-current assets	**–156,803**	**128**	**–**	**–467**	**–157,143**	**9,578**	**166,721**
Inventories	155,348	–8,448	–	1,046	147,946	154,331	6,386
Trade receivables and contract assets	–72,120	–8,492	–	381	–80,231	30,924	111,156
Other current assets	2,229	–5,245	44	173	–2,799	15,636	18,435
Other current financial assets	446	–500	–	–3	–58	343	401
Cash and cash equivalents	1,639	–2	–	–26	1,611	1,736	125
Current assets	**87,542**	**–22,688**	**44**	**1,570**	**66,468**	**202,971**	**136,502**
Total assets	**–69,261**	**–22,560**	**44**	**1,103**	**–90,674**	**212,549**	**303,223**
Non-current provisions	22,655	2,375	–	4,601	29,631	29,631	–
Non-current employee benefit obligations	134,247	8,573	–9,860	1,380	134,341	134,676	335
Non-current financial liabilities	17,826	5,341	468	–468	23,167	24,925	1,758
Other non-current liabilities and contract liabilities	–1,016	1,480	–	–	464	464	–
Non-current liabilities	**173,712**	**17,769**	**–9,392**	**5,513**	**187,603**	**189,696**	**2,093**
Current provisions	–1,656	23,821	–	505	22,670	36,985	14,315
Current employee benefit obligations	13,851	1,618	–	298	15,767	16,415	649
Current financial liabilities	10,642	6,602	–	–456	16,788	18,517	1,729
Trade payables	52,658	–40,715	–	504	12,448	38,174	25,727
Other current liabilities and contract liabilities	–110,595	31,527	–	87	–78,981	6,476	85,457
Current liabilities	**–35,100**	**22,854**	**–**	**938**	**–11,309**	**116,567**	**127,876**
Total equity and liabilities	**138,612**	**40,623**	**–9,392**	**6,451**	**176,294**	**306,263**	**129,969**
Total deferred taxes on temporary differences	**69,351**	**18,063**	**–9,348**	**7,554**	**85,620**	**518,812**	**433,192**
Tax loss carryforwards	165,906	21,879	–	4,543	192,328	192,328	–
Offsetting of deferred taxes	–	–	–	–	–	–331,279	–331,279
Total recognized deferred taxes	**235,257**	**39,942**	**–9,348**	**12,097**	**277,948**	**379,861**	**101,913**

* Change in deferred taxes relating to IFRS 5, Currency Translation and Deconsolidation

Deferred taxes as of December 31, 2020 changed as follows**:

	01/01/2020 Net	Effects recognized in profit and loss	Effects recognized in OCI	Other*	12/31/2020 Net	Deferred tax assets	Deferred tax liabilities
(EUR thousand)							
Property, plant and equipment	–56,965	8,066	–	1,416	–47,483	4,982	52,465
Goodwill	–28,551	–1,614	–	1,576	–28,589	3,443	32,032
Other intangible assets	–85,604	5,043	–	3,209	–77,352	133	77,485
Other non-current financial assets	–2,849	–477	–	–	–3,326	477	3,803
Other non-current assets	–65	12	–	–	–53	–	53
Non-current assets	**–174,034**	**11,030**	**–**	**6,201**	**–156,803**	**9,035**	**165,838**
Inventories	117,893	39,306	–	–1,851	155,348	159,765	4,417
Trade receivables and contract assets	–70,204	–604	–	–1,312	–72,120	30,117	102,237
Other current assets	2,722	–722	44	185	2,229	14,840	12,611
Other current financial assets	79	311	–	55	446	519	73
Cash and cash equivalents	577	1,061	–	–	1,639	1,646	7
Current assets	**51,067**	**39,352**	**44**	**–2,923**	**87,542**	**206,887**	**119,345**
Total assets	**–122,967**	**50,382**	**44**	**3,278**	**–69,261**	**215,922**	**285,183**
Non-current provisions	19,017	–462	–	4,100	22,655	22,953	298
Non-current employee benefit obligations	128,479	–625	9,967	–3,573	134,247	134,358	111
Non-current financial liabilities	21,645	–3,249	–	–570	17,826	20,470	2,644
Other non-current liabilities and contract liabilities	–1,295	303	–	–24	–1,016	285	1,301
Non-current liabilities	**167,846**	**–4,033**	**9,967**	**–67**	**173,712**	**178,066**	**4,354**
Current provisions	5,835	–6,549	–	–942	–1,656	29,970	31,626
Current employee benefit obligations	14,311	297	–	–756	13,851	13,930	79
Current financial liabilities	10,045	747	–	–150	10,642	13,427	2,785
Trade payables	24,894	28,767	–	–1,003	52,658	83,248	30,590
Other current liabilities and contract liabilities	–48,767	–62,047	–	219	–110,595	14,518	125,113
Current liabilities	**6,318**	**–38,785**	**–**	**–2,632**	**–35,100**	**155,093**	**190,193**
Total equity and liabilities	**174,164**	**–42,818**	**9,967**	**–2,699**	**138,612**	**333,159**	**194,547**
Total deferred taxes on temporary differences	**51,197**	**7,564**	**10,011**	**579**	**69,351**	**549,081**	**479,730**
Tax loss carryforwards	196,077	–24,372	–	–5,799	165,906	165,906	–
Offsetting of deferred taxes	–	–	–	–	–	–381,157	–381,157
Total recognized deferred taxes	**247,274**	**–16,808**	**10,011**	**–5,220**	**235,257**	**333,830**	**98,573**

* Change in deferred taxes relating to IFRS 5, Currency Translation and Deconsolidation
** The presentation of the impairment on deferred taxes on temporary differences has been adjusted compared to the previous year

The group recognizes deferred tax liabilities of EUR 48,176 thousand (previous year: EUR 47,493 thousand) in connection with leases for rights of use reported under property, plant and equipment, and deferred tax assets of EUR 49,745 thousand (previous year: EUR 47,084 thousand) for lease liabilities reported under financial liabilities.

The amount of income taxes in revenue reserves is EUR 136,632 thousand (previous year: EUR 146,024 thousand) for actuarial gains and losses on pensions and similar obligations. In accumulated other comprehensive income, income taxes amount to EUR 468 thousand (previous year: EUR -44 thousand) for unrealized gains and losses from cash flow hedges.

Deferred tax liabilities of EUR 2,539 thousand (previous year: EUR 1,880 thousand) were recognized as of December 31, 2021, for expected dividend payments from subsidiaries. In this context, as of December 31, 2021, deferred tax liabilities of EUR 3,269 thousand (previous year: EUR 3,355 thousand) were recognized for withholding taxes likely to be incurred.

As of December 31, 2021, no deferred taxes were recognized for taxable temporary differences arising from investments in subsidiaries in the amount of EUR 231,550 thousand (previous year: EUR 252,389 thousand) since the company is able to control their reversal and no reversals will be made in the foreseeable future. The prior-year figure was adjusted.

Deferred tax assets include an amount of EUR 3,279 thousand recognized for an Argentine subsidiary. Of this amount, EUR 2,743 thousand is attributable to the capitalization of deferred taxes on tax losses carryforwards. In addition, deferred tax assets of EUR 1,171 thousand were recognized for a Polish subsidiary, of which EUR 879 thousand relates to the capitalization of deferred taxes on tax loss carryforwards. Both subsidiaries generated tax losses in fiscal year 2021.

In addition, deferred tax assets include an amount of EUR 141,976 thousand recognized for companies in the income tax group of GEA Group Aktiengesellschaft. Of this amount, EUR 73,000 thousand is attributable to the capitalization of deferred taxes on tax loss carryforwards. In addition, deferred tax assets of EUR 3,646 thousand were recognized for a Japanese subsidiary, of which EUR 1,281 thousand is attributable to the capitalization of deferred taxes on tax loss carryforwards. In both cases, tax losses were generated in the 2020 fiscal year, which in Germany were mainly due to material costs in connection with GEA's strategic realignment.

In all of the above cases, GEA assumes favorable business development in future years. As a result, the tax assets recognized as of December 31, 2021 will be recoverable using estimated future taxable income.

As of December 31, 2021, GEA recognized deferred tax assets in the amount of EUR 192,328 thousand (previous year: EUR 165,906 thousand) on tax loss carryforwards:

(EUR thousand)	12/31/2021	12/31/2020
Deferred tax assets on domestic tax loss carryforwards		
Corporate income tax	62,000	52,000
Trade tax	54,000	45,000
Deferred tax assets on foreign tax loss carryforwards	76,328	68,906
Total	**192,328**	**165,906**

The total amount of the deferred tax assets on tax loss carryforwards mainly relates to Germany and the U.S.

Deferred tax assets were fully impaired for corporate income tax loss carryforwards of EUR 952.924 thousand (previous year: EUR 1,154,423 thousand), trade tax loss carryforwards of EUR 777,106 thousand (previous year: 940,505 thousand) and loss carryforwards in connection with U.S. state taxes of EUR 2,064,059 thousand (previous year: EUR 1,930,680 thousand) as their utilization is not sufficiently certain. The prior year amounts for the impairments on corporate and trade tax loss carryforwards were adjusted.

Also, deferred tax assets are not recognized in Germany for corporate income tax loss carryforwards (EUR 85,949 thousand; previous year: EUR 86,364 thousand) and trade tax loss carryforwards (EUR 33,656 thousand; previous year: EUR 33,656 thousand) incurred prior to fiscal unity. Outside Germany, deferred tax assets are not recognized for income tax loss carryforwards of EUR 16,916 thousand (previous year: EUR 13,244 thousand).

The tax loss carryforwards of the German companies can be carried forward for an indefinite period. Foreign tax loss carryforwards can generally only be utilized for a limited period. The significant tax loss carryforwards of the foreign companies are expected to expire in 2029.

7.8 Income from discontinued operations

Discontinued operations include, in particular, the remaining risks from the 2014 sale of GEA Heat Exchangers and of the plant engineering activities in previous years, especially Lurgi and Lentjes, obligations related to the mining activities of the former Metallgesellschaft AG, and the continued process of winding-up past discontinued operations, including individual legal disputes arising from them.

The result from discontinued operations in the fiscal year includes income of EUR 26.1 million (previous year: EUR 2.9 million) as well as expenses of EUR 28.1 million (previous year: EUR 20.2 million). The pre-tax profit from discontinued operations thus amounted to EUR -2.0 million (previous year: EUR -17.3 million). The increase in profit from discontinued operations is mainly due to a cost reimbursement, a repayment for cash previously provided by GEA and the reversal of a financial liability, all of which resulted from an agreement with the acquirer of the former GEA Heat Exchangers business.

Overall, profit after tax from these discontinued operations of EUR 5.6 million (previous year: EUR -11.2 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 7.6 million (previous year: EUR 6.1 million).

7.9 Earnings per share

Earnings per share are calculated as follows:

(EUR thousand)	01/01/2021 - 12/31/2021	01/01/2020 - 12/31/2020
Profit for the period attributable to shareholders of GEA Group Aktiengesellschaft	305,174	96,829
thereof from continuing operations	299,533	108,004
thereof from discontinued operations	5,641	–11,175
Weighted average number of shares outstanding (thousand)	179,976	180,492
Basic and diluted earnings per share (EUR)		
from profit for the period	1.70	0.54
thereof attributable to continuing operations	1.66	0.60
thereof attributable to discontinued operations	0.03	–0.06

7.10 Appropriation of net profit

GEA Group Aktiengesellschaft reported net income for the fiscal year of EUR 187,684 thousand in accordance with the HGB (previous year: EUR 109,942 thousand). Of this amount, EUR 27,000 thousand was transferred to other retained earnings (previous year: withdrawal of EUR 43,000 thousand). Including profit brought forward of EUR 339 thousand (previous year: EUR 815 thousand), the net retained profits amounted to EUR 161,023 thousand (previous year: EUR 153,757 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)	2021	2020
Dividend payment to shareholders	159,590	153,418
Profit carried forward	1,433	339
Total	**161,023**	**153,757**

The dividend payment corresponds to the payment of a dividend of EUR 0.90 per share for a total of 177.322.305 eligible shares (previous year: 180,492,172 shares). The dividend will be paid from the contribution account for tax purposes (section 27 of the Körperschaftsteuergesetz (KStG - German Corporate Income Tax Act)) and therefore without deduction of investment income tax and the solidarity surcharge. In the case of shareholders in Germany, the dividend is not subject to current taxation in the year of payment. The opinion of the German tax authorities (see also the Federal Ministry of Finance (BMF) circular dated 1/18/2016, para. 92) is that the payment of dividends from the contribution account for tax purposes constitutes a repayment of shareholder contributions, which results in a retrospective reduction in the cost of the shares. This can lead to the imposition of higher capital gains taxes if the shares are sold at a later date.

8. Contingent Liabilities, other Financial Obligations, Contingent Assets and Litigation

8.1 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)	2021	2020	2021	2020
Guarantees for prepayments	7,817	3,005	207	–
Warranties	1,650	6	17	340
Performance guarantees	7,210	3,647	96,343	128,321
Other declarations of liability	173	11	7,438	6,581
Total	**16,850**	**6,669**	**104,005**	**135,242**
thereof attributable to GEA Heat Exchangers	–	–	–	41,111
thereof attributable to Lurgi	–	–	95,661	88,162

Most of the group guarantees are attributable to the operating activities of Lurgi which were disposed of in previous years (see section 3 of the Notes to the Consolidated Financial Statements for further details).

The other guarantees relate mainly to customers of unconsolidated 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, noncompliance with warranted performance parameters, or failure to repay loans in accordance with the contractual requirements.

The guarantees include contingent liabilities of EUR 7,709 thousand resulting from joint ventures (previous year: EUR 5,945 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.

8.2 Other financial obligations

The other financial obligations of the group as of December 31, 2021, are composed of purchase commitments amount to EUR 173,934 thousand (previous year: EUR 125,616 thousand). EUR 159,736 thousand (previous year: EUR 114,531 thousand) of the purchase commitments, are attributable to inventories and EUR 8,862 thousand (previous year: EUR 7,958 thousand) to property, plant and equipment.

The group has entered into various lease agreements which had not commenced as of December 31, 2021. The future lease payments for these non-cancelable leases amount to EUR 819 thousand (previous year: EUR 230 thousand) for the next year, EUR 4,063 thousand (previous year: EUR 1,733 thousand) for years two to five and EUR 5,098 thousand (previous year: EUR 2,199 thousand) for the period thereafter.

9. Segment Reporting

9.1 Description of operating segments

GEA's new group structure became effective on January 1, 2020. In this new structure, the group is divided into five divisions with up to six business units each, comprising similar technologies. As of January 1, 2021, GEA made some minor adjustments to its divisional structure so that individual companies whose activities related to two or more divisions, but were allocated to just one, will now be broken down by their respective business activities. In so doing, GEA has created a greater level of differentiation between divisions and a clearer structure.

The breakdown into divisions is consistent with internal management and reporting to the Executive Board and Supervisory Board.

Due to the change in the divisional structure as of January 1, 2021, the 2021 fiscal year is shown in the current reporting period in both the old and the new divisional structure, in accordance with IFRS 8.30. The presentation of the old divisional structure for the fiscal year 2021 is indicated in the following tables by the addition of "pro forma". However, in accordance with IFRS 8.29, the prior-year figures have not been adjusted, since the cost to develop the relevant information would be excessive. During the 2021 fiscal year, the Refrigeration Technologies division was renamed the Heating & Refrigeration Technologies division. This change had no effect on the divisional structure.

GEA's business activities are divided into the following five divisions:

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, beverage, food, chemical and other industries; the portfolio includes liquid processing and filling, concentration, purification, drying, powder handling and packaging, as well as systems for 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 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 continues to bundle 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 investment property held for sale and liabilities related to discontinued operations.

(EUR million)	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	**Total segments**	Others	Consolidation	**GEA**
01/01/2021 - 12/31/2021									
Order backlog[1]	489.4	1,353.0	605.3	214.8	206.7	**2,869.1**	–	–83.7	**2,785.4**
Order intake[1]	1,359.1	1,747.7	1,032.8	702.1	617.0	**5,458.7**	–	–236.2	**5,222.5**
External revenue	1,106.2	1,499.0	907.0	629.2	561.6	**4,702.9**	–	–	**4,702.9**
Intersegment revenue	131.0	47.1	30.1	4.7	22.4	**235.3**	–	–235.3	**–**
Total revenue	1,237.2	1,546.1	937.1	633.9	584.0	**4,938.2**	–	–235.3	**4,702.9**
EBITDA before restructuring expenses	302.5	150.0	100.4	76.1	59.5	**688.6**	–63.0	–0.8	**624.8**
as % of revenue	24.5	9.7	10.7	12.0	10.2	**13.9**	–	–	**13.3**
EBITDA	302.4	147.4	88.1	73.3	37.5	**648.7**	–78.7	–0.8	**569.3**
EBIT before restructuring expenses	259.1	114.0	55.8	48.6	42.4	**519.9**	–75.5	–0.6	**443.7**
as % of revenue	20.9	7.4	6.0	7.7	7.3	**10.5**	–	–	**9.4**
EBIT	258.9	111.4	42.5	44.9	13.8	**471.5**	–91.2	–0.6	**379.7**
as % of revenue	20.9	7.2	4.5	7.1	2.4	**9.5**	–	–	**8.1**
ROCE in % (3rd Party)[2]	31.1	–	14.7	19.8	24.3	**–**	–	–	**27.8**
Profit or loss from discontinued operations	–	–	–	–	–	**–**	5.6	–	**5.6**
Segment assets	2,505.0	1,797.3	1,308.8	614.7	651.4	**6,877.2**	3,382.2	–4,385.0	**5,874.4**
Capital employed (reporting date, 3rd Party)[3]	819.2	–136.5	356.0	248.8	170.5	**1,458.0**	9.9	–	**1,467.9**
Net working capital (reporting, date3rd Party)[4]	243.7	–206.2	44.3	121.7	71.0	**274.5**	–34.3	–	**240.3**
Additions to property, plant and equipment and intangible assets	50.3	33.2	49.9	26.4	17.4	**177.1**	24.3	–0.1	**201.3**
Depreciation and amortization	41.8	34.4	43.0	27.5	16.8	**163.5**	12.5	–0.1	**175.9**
Impairment losses[5]	1.7	1.6	2.6	0.9	6.9	**13.7**	–	–	**13.7**

(EUR million)	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	**Total segments**	Others	Consolidation	**GEA**
01/01/2020 - 12/31/2020									
Order backlog[1]	373.7	1,177.4	481.5	150.7	235.8	**2,419.2**	–	–120.7	**2,298.5**
Order intake[1]	1,211.6	1,665.3	854.2	677.0	625.3	**5,033.4**	–	–330.3	**4,703.0**
External revenue	1,031.9	1,577.1	772.4	619.1	634.5	**4,635.1**	–	–	**4,635.1**
Intersegment revenue	160.2	88.5	122.7	5.7	28.3	**405.4**	–	–405.4	**–**
Total revenue	1,192.1	1,665.7	895.1	624.8	662.8	**5,040.5**	–	–405.4	**4,635.1**
EBITDA before restructuring expenses	255.3	120.2	79.0	66.9	58.8	**580.2**	–47.3	–0.4	**532.5**
as % of revenue	21.4	7.2	8.8	10.7	8.9	**11.5**	–	–	**11.5**
EBITDA	241.1	124.1	74.3	61.7	60.0	**561.3**	–82.6	–0.4	**478.3**
EBIT before restructuring expenses	210.9	80.4	27.6	39.6	38.5	**397.1**	–65.5	–0.2	**331.4**
as % of revenue	17.7	4.8	3.1	6.3	5.8	**7.9**	–	–	**7.1**
EBIT	193.6	77.4	12.3	12.7	26.2	**322.2**	–100.7	–0.2	**221.2**
as % of revenue	16.2	4.6	1.4	2.0	4.0	**6.4**	–	–	**4.8**
ROCE in % (3rd Party)[2]	23.5	95.6	6.3	13.9	15.5	**–**	–	–	**17.1**
Profit or loss from discontinued operations	–	–	–	–	–	**–**	–11.2	0.0	**–11.2**
Segment assets	2,384.9	1,853.8	1,138.3	586.3	746.3	**6,709.5**	3,395.6	–4,418.2	**5,686.9**
Capital employed (reporting date, 3rd Party)[3]	824.0	–2.2	379.1	256.0	210.8	**1,667.7**	–25.7	–	**1,642.0**
Net working capital (reporting, date3rd Party)[4]	245.1	–106.6	74.0	120.1	78.8	**411.4**	–44.6	–	**366.8**
Additions to property, plant and equipment and intangible assets[6]	38.1	30.6	30.0	21.1	9.0	**129.0**	23.4	–	**152.3**
Depreciation and amortization	45.8	39.3	51.4	27.4	19.8	**183.7**	13.3	–0.1	**196.9**
Impairment losses[5]	1.7	7.5	10.6	21.7	14.0	**55.4**	4.8	–	**60.2**

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 liabilities in connection with income taxes; 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 disvisional level since the beginning of the financial year 2021. The comparative figure for the prior-year period Q1-Q4 2020 has been adjusted accordingly to reflect the new logic. Due to negative capital employed, ROCE is not meaningful for the year 2021.
3) Capital employed has now been considered as „Capital employed 3rd Party“ at the divisional level since the beginning of the financial year 2021. The comparative figure for the prior-year period Q1-Q4 2020 has been adjusted accordingly to reflect the new logic.
4) Working capital = inventories + trade receivables + contract assets - trade payables - contract liabilities - provisions for anticipated losses (POC); Net working capital has now been considered as „Net working capital 3rd Party“ at the disvisional level since the beginning of the financial year 2021. The comparative figure for the prior-year period Q1-Q4 2020 has been adjusted accordingly to reflect the new logic.
5) Included are impairment losses in connection with the classification as „held for sale“; Further details can be found in Note 7.4.
6) Prior-year figures have been adjusted.

Pro forma:

(EUR million)	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	**Total segments**	Others	Consolidation	**GEA**
01/01/2021 - 12/31/2021									
Total revenue	1,238.9	1,662.6	885.5	670.8	583.1	**5,041.0**	–	–338.0	**4,702.9**
EBITDA before restructuring expenses	297.4	153.8	90.7	81.7	64.4	**688.0**	–63.0	–0.2	**624.8**
as % of revenue	24.0	9.2	10.2	12.2	11.0	**13.6**	–	–	**13.3**
ROCE in % (3rd Party)*	31.4	–	12.8	20.9	27.8	**–**	–	–	**27.8**

*) 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, has now been considered as „ROCE 3rd Party" (excluding interdivisional effects in the capital employed) at the disvisional level since the beginning of the financial year 2021. Due to negative capital employed, ROCE is not meaningful for the year 2021.

The tables set out above have been revised retrospectively to reflect management reporting.

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 reconciliation of EBITDA to EBIT is shown in the following table:

Reconciliation of EBITDA to EBIT (EUR million)	2021	2020
EBITDA	**569.3**	**478.3**
Depreciation of property, plant and equipment, investment property, and amortization of intangible assets (see notes 5.1, 5.3)	–175.9	–196.9
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 5.1, 5.2, 5.3, 7.4)	–11.2	–58.5
Impairment losses and reversals of impairment losses on non-current financial assets	–2.6	–1.7
EBIT	**379.7**	**221.2**

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)	2021	2020
EBIT GEA	**379.7**	**221.2**
Interest income	7.7	4.6
Interest expenses	–29.3	–28.6
Profit before tax from continuing operations	**358.1**	**197.1**

A detailed discussion of changes in interest income and interest expenses is included in Sections 7.5 and 7.6 of the Notes to the Consolidated Financial Statements.

(EUR million)	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	Consolidation	GEA
01/01/2021 - 12/31/2021							
Revenue by revenue element							
From construction contracts	179.0	1,142.6	436.8	0.0	204.4	–61.0	**1,901.7**
From components business	507.0	77.4	230.4	355.5	135.5	–113.5	**1,192.2**
From service agreements	551.2	326.1	269.9	278.3	244.1	–60.7	**1,609.0**
Total	**1,237.2**	**1,546.1**	**937.1**	**633.9**	**584.0**	**–235.3**	**4,702.9**

Pro forma

(EUR million)	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	Consolidation	GEA
01/01/2021 - 12/31/2021							
Revenue by revenue element							
From construction contracts	185.6	1,164.7	416.4	0.1	231.8	–96.8	**1,901.7**
From components business	512.7	112.4	223.0	376.8	117.7	–150.4	**1,192.2**
From service agreements	540.6	385.4	246.1	294.0	233.6	–90.8	**1,609.0**
Total	**1,238.9**	**1,662.6**	**885.5**	**670.8**	**583.1**	**–338.0**	**4,702.9**

(EUR million)	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	Consolidation	GEA
01/01/2020 - 12/31/2020							
Revenue by revenue element							
From construction contracts	119.4	1,171.4	408.5	–	256.9	–136.4	**1,819.8**
From components business	567.1	117.7	247.9	339.3	166.1	–182.3	**1,255.8**
From service agreements	505.6	376.5	238.7	285.5	239.8	–86.7	**1,559.5**
Total	**1,192.1**	**1,665.7**	**895.1**	**624.8**	**662.8**	**–405.4**	**4,635.1**

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)	2021	2020	Change in %
Asia Pacific	1,091.0	1,058.2	3.1
DACH & Eastern Europe	980.9	1,022.1	–4.0
thereof Germany	406.9	424.5	–4.2
Latin America	334.8	304.6	9.9
North America	834.6	864.7	–3.5
North- and Central Europe	636.3	604.3	5.3
Western Europe, Middle East & Africa	825.1	781.1	5.6
GEA	**4,702.9**	**4,635.1**	**1.5**

In the reporting period, revenue of EUR 710.5 million (previous year: EUR 730.1 million) was attributable to the United States of America and EUR 505.3 million (previous year: EUR 457.8 million) was attributable to the People's Republic of China. There are no relationships with individual customers whose revenue can be considered material in comparison to total group revenue.

In line with its internal control system, GEA's management uses ROCE, EBITDA before restructuring measures and revenue as key performance indicators for management purposes. When calculating EBITDA before restructuring measures, 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 2021 totaled EUR 64.0 million (previous year: EUR 110.2 million), with EUR 55.5 million (previous year: EUR 54.2 million) of this amount included in EBITDA. In the year under review, restructuring expenses of EUR 40.6 million were cash-effective (previous year: EUR 38.2 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 2021 can be allocated to the segments as follows:

(EUR million)	Separation & Flow Technologies	Liquid & Powder Technologies	Food & Healthcare Technologies	Farm Technologies	Heating & Refrigeration Technologies	Others	GEA
Restructuring according to IAS 37	–0.8	–	7.4	–0.7	–	–0.8	**5.1**
Impairments and reversals of impairments	0.1	–	1.8	1.4	6.6	–	**9.8**
Gains and losses from the disposal of selected parts of operations	–	–	–	–0.9	18.4	–	**17.5**
Others	0.9	2.6	4.1	3.9	3.6	16.5	**31.6**
Total	**0.2**	**2.6**	**13.3**	**3.8**	**28.6**	**15.7**	**64.0**

* Restructuring expense: + / restructuring income: -

The EUR 15.7 million under "Others" primarily relates to expenses in connection with the strategic reorganization of GEA and the announced portfolio streamlining.

9.2 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**
01/01/2021 - 12/31/2021								
Non-current assets	116.3	481.5	427.8	6.6	62.8	138.5	224.8	**1,030.6**
01/01/2020 - 12/31/2020								
Non-current assets	98.9	462.2	414.8	5.5	57.3	148.4	237.5	**1,009.6**

The carrying amounts of non-current assets in the Netherlands amounted to EUR 68.3 million (previous year: EUR 73.2 million) as of the reporting date, and in Italy to EUR 208.1 million (previous year: EUR 213.9 million). These are the two countries with the largest stock of non-current assets.

10. Other Disclosures

10.1 Cash flow disclosures

Cash flow from investing activities of discontinued operations comprises cash flows in connection with operations sold in previous years.

Financial liabilities, the inflows and outflows of which appear in the cash flow statement under cash flow from financing activities, changed as follows in fiscal year 2021:

(EUR thousand)	Balance at 1/1/2021	Cash flow from financing activities	Changes in consolidated group	Exchange rate differences	Changes in fair value	Other changes	**Balance at 12/31/2021**
Bonds and debentures issued	249,738	–	–	–	–	86	**249,824**
Finance loans	150,601	–150,000	–	–	–	–189	**412**
Liabilities from finance leases	100,765	–	–1,356	1,770	–	8,987	**110,166**
Noncurrent financial liabilities	**501,104**	**–150,000**	**–1,356**	**1,770**	**–**	**8,884**	**360,402**
Bonds and debentures issued	2,144	–	–	–	–	–1	**2,143**
Finance loans	18,992	–7,742	–	–905	–	–	**10,345**
Liabilities from finance leases	56,180	–61,870	–1,425	752	–	62,013	**55,650**
Current financial liabilities	**77,316**	**–69,612**	**–1,425**	**–153**	**–**	**62,012**	**68,138**
Interest rate swap and forward exchange contracts used for hedging - liabilities	–	–	–	–	–	–	**–**
Total	**578,420**	**–219,612**	**–2,781**	**1,617**	**–**	**70,896**	**428,540**

(EUR thousand)	Balance at 1/1/2020	Cash flow from financing activities	Changes in consolidated group	Exchange rate differences	Changes in fair value	Other changes	**Balance at 12/31/2020**
Bonds and debentures issued	249,653	–	–	–	–	85	**249,738**
Finance loans	50,919	99,888	–	6	–	–212	**150,601**
Liabilities from finance leases	123,266	–	192	1,806	–	–24,499	**100,765**
Noncurrent financial liabilities	**423,838**	**99,888**	**192**	**1,812**	**–**	**–24,626**	**501,104**
Bonds and debentures issued	2,143	–	–	–	–	1	**2,144**
Finance loans	23,633	–6,725		60	–	2,024	**18,992**
Liabilities from finance leases	58,888	–62,362	386	4,487	–	54,781	**56,180**
Current financial liabilities	**84,664**	**–69,087**	**386**	**4,547**	**–**	**56,806**	**77,316**
Interest rate swap and forward exchange contracts used for hedging - liabilities	–	–	–	–	–	–	**–**
Total	**508,502**	**30,801**	**578**	**6,359**	**–**	**32,180**	**578,420**

The table shown does not include financial liabilities of EUR 126,020 thousand (previous year: EUR 134,213 thousand), as the resulting cash flows are not allocated to cash flow from financing activities.

The financial liabilities mentioned involve liabilities to affiliated companies of EUR 33,891 thousand (previous year: EUR 28,941 thousand), liabilities to employees of EUR 19,620 thousand (previous year: EUR 20,092 thousand), liabilities from derivatives of EUR 12,777 thousand (previous year: EUR 6,687 thousand), as well as other financial liabilities of EUR 59,732 thousand (previous year: EUR 78,493 thousand).

10.2 Government grants

Government grants related to income amounting to EUR 7,135 thousand were received in fiscal year 2021 (previous year: EUR 10,374 thousand). Grants related to assets of EUR 380 thousand (previous year: EUR 150 thousand) were deducted from the carrying amounts of the assets concerned. In addition, expenses of EUR 78 thousand (previous year: EUR 82 thousand) were incurred for the potential repayment of grants received.

During 2021, GEA received government grants in some countries outside of Germany in connection with claiming short-time working benefits and similar allowances as well as the reimbursement of associated social security contributions. A receivable from the relevant employment agency or government is recognized when reimbursement for payments of short-time working benefits is reasonably certain. Grants amounting to EUR 5,640 thousand (previous year: EUR 2,455 thousand) were granted for short-time working benefits paid to employees. These had no impact on profit and loss. Reimbursements of social security contributions in connection with the utilization of short-time allowances amounted to EUR 50 thousand (previous year: EUR 3,224 thousand) and were recognized as a reduction in personnel expenses.

10.3 Related party disclosures

10.3.1 Related party transactions

Transactions between GEA Group Aktiengesellschaft and its consolidated subsidiaries were 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 unconsolidated 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
01/01/2021 - 12/31/2021			
Unconsolidated subsidiaries	28,007	1,076	801
Joint ventures	16,661	–	–
Total	**44,668**	**1,076**	**801**
01/01/2020 - 12/31/2020			
Unconsolidated subsidiaries	29,538	1,155	6,874
Joint ventures	17,216	–	–
Total	**46,754**	**1,155**	**6,874**

Related party transactions resulted in the following outstanding items in the group as a whole as of December 31, 2021:

(EUR thousand)	Trade receivables	Trade payables	Other receivables	Other liabilities
12/31/2021				
Unconsolidated subsidiaries	6,285	898	9,416	33,037
Joint ventures	1,403	1,365	1	–
Total	**7,688**	**2,263**	**9,417**	**33,037**
thereof current	7,688	2,263	9,408	33,037
12/31/2020				
Unconsolidated subsidiaries	9,221	1,382	8,906	30,256
Joint ventures	3,974	20	1	–
Total	**13,195**	**1,402**	**8,907**	**30,256**
thereof current	13,099	1,402	8,898	30,256

In the reporting year, impairment losses on other receivables from unconsolidated subsidiaries of EUR 145 thousand (previous year: EUR 355 thousand) were recognized.

As of the current reporting date and the previous year, no trade payables to non-consolidated companies are secured.

10.3.2 Remuneration of the Executive Board and the Supervisory Board

The total remuneration of the Executive Board and the Supervisory Board of GEA Group Aktiengesellschaft in fiscal year 2021 in accordance with IFRS amounted to EUR 13,954 thousand (previous year: EUR 10,567 thousand). This amount comprised the following elements:

(EUR thousand)	2021	2020
Short-term employee benefits	6,844	6,892
Post-employment benefits	900	1,028
Share-based payments	6,210	2,647
Total	**13,954**	**10,567**

The share-based payments comprise the expense incurred in the fiscal year from share-based payment.

During the year under review, the expenses incurred for the Supervisory Board amounted to EUR 1,326 thousand (previous year: EUR 1,403 thousand).

The total compensation granted to active members of the Executive Board in the fiscal year according to section 314 of the HGB amounted to EUR 7,750 thousand (previous year: EUR 7,812 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 2,232 thousand, attributable to 104,706 shares (previous year: EUR 2,291 thousand, attributable to 110,439 shares) of the tranche of the performance share plan granted in the respective financial year.

In fiscal year 2021, former Executive Board members and their surviving dependents received remuneration in the form of pension payments from the GEA group amounting to EUR 5,018 thousand (previous year: EUR 4,977 thousand). Pension provisions in accordance with IFRS were recognized for former Executive Board members and their surviving dependents in the amount of EUR 89,212 thousand EUR (previous year: EUR 95,145 thousand). In the previous year EUR 2,983 thousand of this amount was attributable to members of the Executive Board who left the company during the year 2020. In the current fiscal year, no member of the Executive Board left the company.

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 by members of the Executive Board or Supervisory Board or their related parties in either the reporting or the comparative period.

11. Events after the End of the Reporting Period

GEA Group Aktiengesellschaft completed the first tranche of the share buyback program of EUR 130,534 thousand on February 17, 2022. The total volume of shares purchased on the stock exchange between August 16, 2021, and February 17, 2022, is 3,169,867 shares, of which 872,834 shares are attributable to the period from January 1, 2022, to February 17, 2022. The total volume of shares from the first tranche of the buyback program represents 1.76 percent of GEA Group Aktiengesellschaft's share capital. Over the total term of the first tranche of the program, the shares were acquired at an average purchase price of EUR 41.18.

On February 18, 2022, an agreement was reached with NORD Holding, the buyer of the Bock Group, regarding the final purchase price. The final deconsolidation loss is thus reduced by EUR 92 thousand to EUR 9,950 thousand.

The disposal of selected lines within the Heating & Refrigeration Technologies division announced on the Capital Markets Day in September 2019 led to the sale of the refrigeration contracting and service operations in France on October 25, 2021. The transaction was closed on February 28, 2022, resulting in the deconsolidation of the group company GEA Refrigeration France SAS. Based on the preliminary purchase price, the gain on disposal amounts to some EUR 2,000 thousand. The final purchase price is still being negotiated.

12. Supplemental Disclosures in Accordance with Section 315e of the HGB

12.1 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 16, 2021, and made it permanently available to shareholders on the company's website.

12.2 Number of employees

The average number of employees during the year was as follows:

Average number of employees during the year *	2021	2020
DACH & Eastern Europe	6,840	6,823
North & Central Europe	3,093	3,087
Asia Pacific	2,983	3,031
Western Europe, Middle East & Africa	3,100	3,207
North America	1,604	1,618
Latin America	561	527
Continuing operations	**18,181**	**18,293**
DACH & Eastern Europe	1	1
Discontinued operations	**1**	**1**
Total	**18,182**	**18,294**

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

12.3 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 2021 are broken down as follows:

(EUR thousand)	2021	2020
Audit	4,489	5,476
of which KPMG AG Wirtschaftsprüfungsgesellschaft	1,860	2,618
Other audit related services	340	335
of which KPMG AG Wirtschaftsprüfungsgesellschaft	292	274
Tax consulting services	88	96
of which KPMG AG Wirtschaftsprüfungsgesellschaft	25	–
Other services	123	193
of which KPMG AG Wirtschaftsprüfungsgesellschaft	123	192
Total	**5,040**	**6,100**
of which KPMG AG Wirtschaftsprüfungsgesellschaft	**2,300**	**3,084**

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, for example, audits required by law or by contract such as EMIR audits pursuant to section 20 Wertpapierhandelsgesetz (WpHG – German Securities Trading Act) and covenant certification, as well as to the audit of the non-financial statement and of the compliance management system.

The other services relate to, among others, the project-related audit in connection with the implementation of SAP S/4 Hana at GEA.

12.4 Investments

The following list shows all subsidiaries, associates, and joint ventures. With the exception of other equity investments within the meaning of section 313(2) No. 4 of the HGB, it does not contain investments in companies that GEA neither controls nor over which it can exercise significant influence.

	Head Office	Shares %
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	100.00
GEA Farm Technologies Australia Pty. Ltd.	Melbourne	100.00
GEA Nu-Con Pty. Ltd.	Sutherland	100.00
GEA Process Engineering Pty. Ltd.	Blackburn	100.00
GEA Westfalia Separator Australia Pty. Ltd.	Melbourne	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		
GEA Farm Technologies Canada Inc.	Drummondville	100.00
GEA Canada Inc.	Saint John	100.00
GEA Refrigeration Canada Inc.	Richmond	100.00

	Head Office	Shares %
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
GEA Refrigeration Hong Kong Ltd.	Hong Kong	100.00
GEA Westfalia Separator (China) Ltd.	Hong Kong	100.00
GEA Westfalia Separator (Tianjin) Co., Ltd.	Tianjin	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

	Head Office	Shares %
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 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
GEA Group Holding France SAS	Montigny le Bretonneux	100.00
GEA Process Engineering SAS	Saint-Quentin en Yvelines Cedex	100.00
GEA Refrigeration France SAS	Les Sorinières	100.00
GEA Westfalia Separator France SAS	Château-Thierry	100.00
Germany		
Brückenbau Plauen GmbH	Frankfurt/Main	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

	Head Office	Shares %
GEA Messo GmbH *	Duisburg	100.00
GEA Real Estate GmbH *	Lennestadt	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
mg capital gmbh *	Düsseldorf	100.00
Paul Pollrich 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
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

	Head Office	Shares %
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	Peveragno	100.00
GEA COMAS S.p.A.	Torrebelvicino	100.00
GEA Food Solutions Italy S.r.l.	Osio Sopra	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.	Osio Sopra	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
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

	Head Office	Shares %
Netherlands		
BOS Homogenisers B.V.	Hilversum	100.00
GEA Dutch Holding B.V.	s-Hertogenbosch	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 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 B.V.	Cuijk	100.00
GEA Westfalia Separator Nederland Service B.V.	Cuijk	100.00
KET Marine International B.V.	Zevenbergen	100.00
PMJ Products B.V.	Raamsdonksveer	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
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

	Head Office	Shares %
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
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

	Head Office	Shares %
Switzerland		
GEA Aseptomag AG	Kirchberg	100.00
GEA Aseptomag Holding AG	Kirchberg	100.00
GEA Food Solutions Switzerland AG	Kirchberg	100.00
GEA mts flowtec AG	Kirchberg	100.00
GEA Suisse AG	Kirchberg	100.00
GEA Systems Suisse AG	Liestal	100.00
Taiwan		
GEA Process Engineering Taiwan Ltd.	Taipeh	100.00
Thailand		
GEA (Thailand) Co., Ltd.	Bangkok	99.9994
Turkey		
GEA Farm Technologies Tarim Ekip.Mak.Kim. Tek.Dan.San.Tic.Ltd.Sti. i.L.	Izmir	100.00
GEA PROSES MÜHENDİSLİK SANAYİ VE TİCARET LİMİTED ŞİRKETİ	Izmir	100.00
GEA Westfalia Separator Sanayi ve Ticaret 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.	Naperville	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-Stadt	100.00

	Head Office	Shares %
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	Hoenheim	100.00
Germany		
„SEMENOWSKY VAL“ Immobilien- Verwaltungs-GmbH i.L.	Düsseldorf	100.00
GEA Beteiligungsgesellschaft I mbH	Düsseldorf	100.00
GEA Beteiligungsgesellschaft III mbH	Düsseldorf	100.00
GEA Segment Management Holding GmbH	Düsseldorf	100.00
GEA MGL GmbH	Düsseldorf	100.00
GEA Verwaltungs AG	Düsseldorf	100.00
MG Stahlhandel GmbH	Düsseldorf	100.00

	Head Office	Shares %
Sachtleben Bergbau Verwaltungsgesellschaft mit beschränkter Haftung	Lennestadt	100.00
Trennschmelz Altersversorgung GmbH	Düsseldorf	100.00
Twiste Copper GmbH	Lennestadt	100.00
VDM-Hilfe GmbH i.L.	Düsseldorf	100.00
Great Britain		
Breconcherry Ltd.	Bromyard	100.00
GEA Barr-Rosin Ltd.	Warrington	100.00
Milfos UK Ltd.	Halesowen	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
Malaysia		
GEA Refrigeration Malaysia Sdn. Bhd. i.L.	Petaling Jaya	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.	Alba Iulia	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

	Head Office	Shares %
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
Thailand		
CFS Asia Ltd. i.L.	Bangkok	99.9998
Ukraine		
DE GEA Westfalia Separator Ukraine	Kiev	100.00
GEA Food Solutions Ukraine LLC i.L.	Kiev	100.00
GEA Grasso TOV	Kiev	100.00
TOV GEA Ukraine	Bila Zerkva	100.00
Uruguay		
Balterin S.A.	Montevideo	100.00
Crismil S.A.	Montevideo	100.00
Accociated Companies		
Argentina		
IMAI S.A.	Buenos Aires	20.00
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 %
Other equity investments under section 313(2) no. 4 of the HGB		
Brazil		
EPSA Empresa Paulista de Servicos Ambientais S.A.	Sao Paulo	47.50
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 1, 2021

The Executive Board

Stefan Klebert Johannes Giloth Marcus A. Ketter

04

FURTHER INFORMATION

Independent Auditor’s Report

To GEA Group Aktiengesellschaft

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, 2021, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the financial year from January 1 to December 31, 2021, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined group management report of GEA Group Aktiengesellschaft, Düsseldorf, for the financial year from January 1 to December 31, 2021. 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, 2021, and of its financial performance for the financial year from January 1 to December 31, 2021, 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 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) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the 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, 2021. 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 5.2.

THE FINANCIAL STATEMENT RISK

Goodwill totaled EUR 1,481.2 million as of December 31, 2021, of which EUR 203.5 million was attributable to the FHT segment. Overall, representing 25.2% of total assets, goodwill has the most significance for the Company’s financial position.

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. Due to the low difference – considered possible as of the date of risk assessment – between the carrying amount and recoverable amount for the FHT segment, the following reporting is restricted to the goodwill impairment of specifically this segment. The effective date for the impairment test is October 31, 2021.

As a result of the impairment test performed, the Company 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, the assumed long-term growth rates 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 Company's key assumptions and calculation methods for testing the goodwill of the FHT Division for impairment. To this end, we discussed and validated with those responsible for planning the expected development of business and earnings as well as the assumed long-term growth rates. We also reconciled this information with other internally available forecasts and the budget prepared by the Executive Board and approved by the Supervisory Board. In addition, we assessed the consistency of assumptions with external market assessments.

We also confirmed the accuracy of the Company'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, in particular the risk-free rate, the market risk premium, country risk premium and the beta factor, 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. The Company's assumptions and data used for measurement are appropriate.

The corresponding disclosures in the notes are complete and appropriate.

Recognition of revenue from construction contracts

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 7.1 in the notes to the consolidated financial statements.

THE FINANCIAL STATEMENT RISK

In financial year 2021, revenue in the amount of EUR 1,901.7 million was generated from construction contracts. As of December 31, 2021, the gross amount due from customers for contract work (contract assets) was EUR 335.6 million and the gross amount due to customers for contract work (contract liabilities) was EUR 766.2 million.

Contract revenue and results of construction contracts, which are to be recognized over time according to IFRS 15.35, are recognized in accordance with the percentage of completion method 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 and establishment 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 Group's non-financial statement, and
- the corporate governance statement.

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 group management report information audited for content or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

In accordance with our engagement letter, we conducted a separate assurance engagement of the non-financial statement. Please refer to our assurance report dated March 1, 2022, for information on the nature, scope and findings of this assurance engagement.

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 Group's assets, liabilities, financial position and financial performance. 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 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 for one 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 related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Group Management Report Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB

We have performed assurance work in accordance with Section 317 (3a) HGB to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the combined group management report (hereinafter the "ESEF documents") contained in the electronic file "geagroup-2021-12-31-de.zip" (SHA256-Hashvalue: 8af31c0807caef410fab78689211b479e4655dd4950216a42bbf6fec3d10ee45) 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, 2021, 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 (10.2021)) [if conducive to the understanding of the report at an international level: 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 QS 1).

The Company's management is responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the 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 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 Articles 4 and 6 of Commission Delegated Regulation (EU) 2019/815 as applicable on the reporting date, enables an appropriate and complete machine-readable XBRL copy of the XHTML reproduction.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor at the Annual General Meeting on April 30, 2021. We were engaged by the Supervisory Board on June 2, 2021. We have been the group auditor of GEA Group Aktiengesellschaft, Düsseldorf, 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 group management report converted to the XHTML format – including the versions to be published in the German Federal Gazette [Bundesanzeiger] – are merely electronic renderings of the audited consolidated financial statements and the audited group management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the examined ESEF documents made available in electronic form.

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Michael Jessen.

Düsseldorf, March 1, 2022

KPMG AG
Wirtschaftsprüfungsgesellschaft

[Signature] Dr. Zeimes	[Signature] Jessen
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

Limited Assurance Report of the Independent Auditor regarding the Non-financial Group Statement

To the Supervisory Board of GEA Group Aktiengesellschaft

We have performed a limited assurance engagement on the non-financial group statement of GEA Group Aktiengesellschaft (further “GEA” or the “Company”) for the period from January 1 to December 31, 2021 (further “report”).

Our audit does not cover external sources of documentation or expert opinions mentioned in the report.

Management’s Responsibility

The legal representatives of the Company are responsible for the preparation of the report in accordance with Sections 315b and 315c HGB in conjunction with Sections 289c to 289e HGB and with Article 8 of REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (further „EU Taxonomy Regulation“) and the supplementing Delegated Acts as well as the interpretation of the wordings and terms contained in the EU Taxonomy Regulation and in the supplementing Delegated Acts by the Company as disclosed in Section “Disclosures on the European Union Taxonomy Regulation” of the report.

This responsibility of the legal representatives includes the selection and application of appropriate methods to prepare the report and the use of assumptions and estimates for individual disclosures which are reasonable under the given circumstances. Furthermore, the legal representatives are responsible for the internal controls they deem necessary for the preparation of the report that is free of – intended or unintended – material misstatements.

The EU Taxonomy Regulation and the supplementing Delegated Acts contain wordings and terms that are still subject to substantial uncertainties regarding their interpretation and for which not all clarifications have been published yet. Therefore, the legal representatives have included a description of their interpretation in Section “Disclosures on the European Union Taxonomy Regulation” of the report. They are responsible for its tenability. Due to the innate risk of diverging interpretations of vague legal concepts, the legal conformity of these interpretations is subject to uncertainty.

Practioners's Responsibility

It is our responsibility to express a conclusion on the report based on our work performed within a limited assurance engagement.

We conducted our work in the form of a limited assurance engagement in accordance with the International Standard on Assurance En¬gagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information", published by IAASB.

Accordingly, we have to plan and perform the assurance engagement in such a way that we obtain limited assurance as to whether any matters have come to our attention that cause us to believe that the report of the Company for the period from January 1 to December 31, 2021 has not been prepared, in all material respects, in accordance with Sections 315b and 315c HGB in conjunction with Sections 289c to 289e HGB and with the EU Taxonomy Regulation and the supplementing Delegated Acts as well as the interpretation of the wordings and terms contained in the EU Taxonomy Regulation and in the supplementing Delegated Acts by the legal representatives as disclosed in Section "Disclosures on the European Union Taxonomy Regulation" of the report. We do not, however, issue a separate conclusion for each disclosure.

As the assurance procedures performed in a limited assurance engagement are less comprehensive than in a reasonable assurance engagement, the level of assurance obtained is substantially lower. The choice of assurance procedures is subject to the auditor's own judgment.

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

- Inquiries of group-level personnel who are responsible for the materiality analysis in order to understand the processes for determining material topics and respective reporting boundaries for 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 economic activities and the corresponding disclosures in the report
- 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 Berlin and Niederahr (Germany)
- Assessment of the overall presentation of the disclosures.

The legal representatives have to interpret vague legal concepts in order to be able to compile the relevant disclosures according to Article 8 of the EU Taxonomy Regulation. Due to the innate risk of diverging interpretations of vague legal concepts, the legal conformity of these interpretations and, correspondingly, our assurance thereof are subject to uncertainty. In our opinion, we obtained sufficient and appropriate evidence for reaching a conclusion for the assurance engagement.

Independence and Quality Assurance on the Part of the Auditing Firm

In performing this engagement, we applied the legal provisions and professional pronouncements regarding independence and quality assurance, in particular the Professional Code for German Public Auditors and Chartered Accountants (in Germany) and the quality assurance standard of the German Institute of Public Auditors (Institut der Wirtschaftsprüfer, IDW) regarding quality assurance requirements in audit practice (IDW QS 1).

In our opinion, we obtained sufficient and appropriate evidence for reaching a conclusion for the assurance engagement.

Conclusion

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the report of GEA Group Aktiengesellschaft, Düsseldorf, for the period from January 1 to December 31, 2021 has not been prepared, in all material respects, in accordance with Sections 315b and 315c HGB in conjunction with Sections 289c to 289e HGB and with the EU Taxonomy Regulation and the supplementing Delegated Acts as well as the interpretation disclosed in Section "Disclosures on the European Union Taxonomy Regulation" of the report. We do not express an audit opinion on the external sources of documentation or expert opinions mentioned in the report.

Restriction of Use/General Engagement Terms

This limited assurance report is issued for purposes of the Supervisory Board of GEA Group Aktiengesellschaft, Düsseldorf, only. We assume no responsibility with regard to any third parties.

Our assignment for the Supervisory Board of GEA Group Aktiengesellschaft, Düsseldorf, and professional liability as described above was governed by the General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften (Allgemeine Auftragsbedingungen für Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) in the version dated January 1, 2017 (Appendix 2).

By reading and using the information contained in this assurance report, each recipient confirms notice of the provisions contained therein including the limitation of our liability as stipulated in No. 9 and accepts the validity of the General Engagement Terms with respect to us.

Düsseldorf, March 1, 2022

KPMG AG
Wirtschaftsprüfungsgesellschaft
[Original German version signed by]

Stauder	Gädeke
Wirtschaftsprüfer	Wirtschaftsprüferin
(German Public Auditor]	[German Public Auditor]

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 changes to the system of Executive Board remuneration in recent years, explains the objectives of the new remuneration system – which has been in force since the beginning of 2021 and will apply to all Executive Board members commencing at the beginning of 2022 – and discusses the points in which the new remuneration system differs from the previous one.

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 2021, 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 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, as well as the level of the remuneration compared with peer companies and the remuneration structure in place in other areas of the company.

The Supervisory Board implemented the **previous remuneration system** effective January 1, 2019. It was valid until the end of 2020 and had been approved by a majority of 93.85 percent at the Annual General Meeting on April 26, 2019. All incumbent Executive Board members were still remunerated under the previous remuneration system on the basis of their current service contracts in the reporting period. Individual members of the Executive Board continued to be remunerated until the end of the 2019 fiscal year under the older **2012 remuneration system,** which was in effect for fiscal years 2012 to 2018. A detailed explanation of the previous remuneration system and the 2012 remuneration system can be found on the homepage gea.com under “Investors – Corporate governance – Remuneration”.

The Supervisory Board adopted the **new remuneration system** effective January 1, 2021. The new system is now in effect and 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. The new remuneration system will apply uniformly for current Executive Board members starting January 1, 2022. Details can be found in this section and are available on the homepage gea.com under “Investors – Corporate governance – Remuneration”.

Principles of the new remuneration system

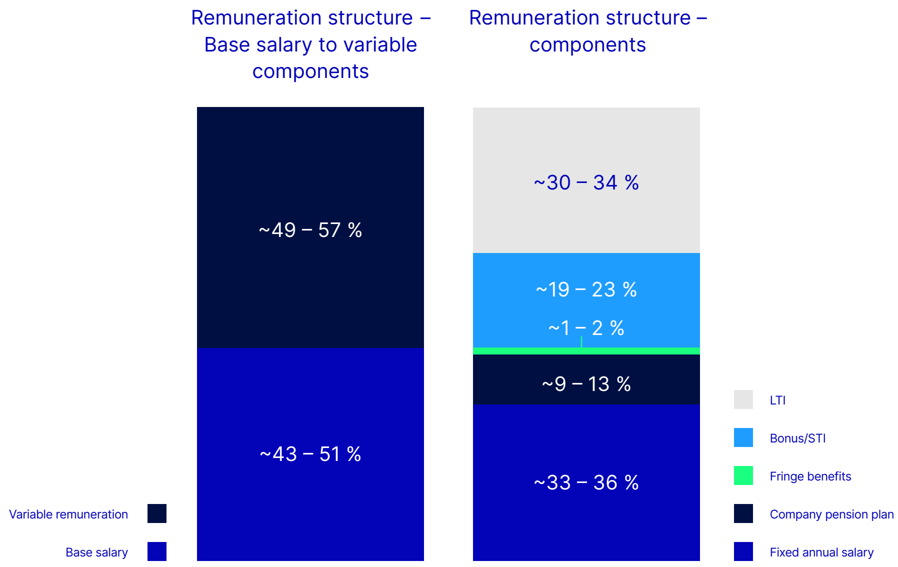
The new remuneration system is characterized by the following basic principles:

- **Strategic relevance**: Performance-based remuneration components serve to promote key objectives of the company strategy, in particular continuous, sustainable and profitable growth.
- **Pay for Performance**: The pay for performance concept is grounded in the idea of linking remuneration to the achievement of ambitious, predefined performance criteria. Malus and clawback provisions are also included.
- **Sustainability and the long term**: The promotion of sustainable and long-term development is achieved by according significant weighting to sustainability-related and long-term performance criteria. In addition, sustainability aspects are emphasized by comparing them to companies included in the DAX 50 ESG Index.
- **Long-term shareholder interests**: Sustainable performance is ensured by the four-year term and the strong share-based component of the long-term incentive (LTI) as well as the share ownership guidelines.
- **Consideration of employee remuneration and employment conditions**: Appropriateness in comparison with senior management and the workforce as a whole is examined when setting remuneration for the Executive Board. In addition, employee satisfaction, as an expression of remuneration and employment conditions, influences the amount of the variable compensation for the Executive Board.
- **Appropriate linkage between management and employee remuneration**: In the case of variable remuneration, care is taken to ensure a uniform management and incentive effect between Executive Board, managers and employees.
- **Regulatory conformity**: The remuneration system for the Executive Board complies with the provisions of the German Stock Corporation Act and takes into account the recommendations of the GCGC.

Target total remuneration under the new remuneration system

The target total remuneration of the Executive Board members is composed of non-performance-related and performance-related components as follows:

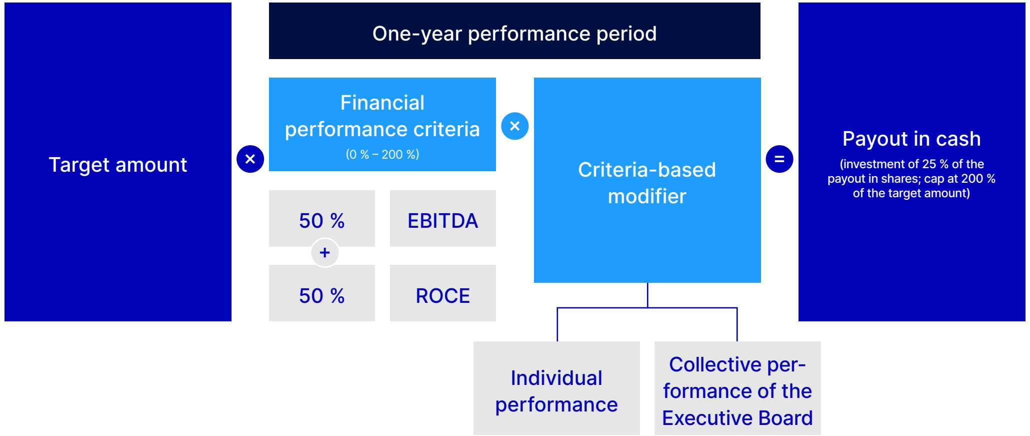
Relative proportion of the components in the total target remuneration



The non-performance-related components comprise a fixed annual salary, fringe benefits and a company pension plan.

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 measures, effects from acquisitions 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:

Bonus/STI



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:

Long-Term Incentive – Performance Share Plan

Significant changes compared to the previous remuneration system

The new remuneration system, effective for all current members of the Executive Board as of January 1, 2021, differs from the prior remuneration system, particularly with regard to the structure of the LTI, which is designed as a performance share plan. A detailed explanation of the relevant differences can be found in the description of the new remuneration system on the homepage gea.com under “Investors – Corporate governance – Remuneration”.

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.

Pursuant to section 15 (1) of the Articles of Association, each member of the Supervisory Board receives fixed annual remuneration of EUR 50 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 Committee and the Audit Committee each receive an additional EUR 35 thousand. In accordance with section 15 (2), the members of the Innovation Committee each receive an additional EUR 25 thousand. The chair of the committee receives 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 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 Committee, the Audit Committee or the Innovation Committee they attend. In fiscal year 2021, the Supervisory Board held seven meetings, the Presiding Committee met five times, the Audit Committee convened on four occasions while the Innovation Committee met twice.

Remuneration for the Supervisory Board members was approved by a majority of 99.77 percent of the shareholders at the Annual General Meeting on April 30, 2021.

Overview of the past fiscal year

Personnel

There has been no change in composition of the Executive Board compared with the previous year. The Supervisory Board extended the contract with Stefan Klebert by five years until December 31, 2026, and, in June 2021, extended the appointment of Marcus A. Ketter as Chief Financial Officer of the company by five years until May 19, 2027.

As of the close of the Annual General Meeting on April 30, 2021, there were six personnel changes on the company's Supervisory Board, which comprises twelve members. These changes affected three board members representing shareholders as well as three board members representing employees. The shareholder representatives on the Supervisory Board were reelected for a four-year term at the Annual General Meeting. Prof. Dr. Annette G. Köhler, Dr. Molly P. Zhang and Colin Hall were reelected. In addition, Holly Lei, Klaus Helmrich and Prof. Dr. Jürgen Fleischer were appointed as new members of the Supervisory Board. Dr. Helmut Perlet, Chairman of the Supervisory Board until April 30, 2021, and members Jean E. Spence and Ahmad M.A. Bastaki, who each served on the Supervisory Board for many years, did not stand for reelection and left the Supervisory Board. On the employee side, current Supervisory Board members Brigitte Krönchen, Michael Kämpfert and new members Claudia Claas and Roger Falk were appointed or elected, respectively, to the Supervisory Board as representatives of company employees, first by resolution of the Düsseldorf Local Court and then by the election of the employee representatives held in fall 2021. Prof. Dr. Cara Röhner and former member Rainer Gröbel, who represent IG Metall, were also initially appointed by the court and then elected to the Supervisory Board. Klaus Helmrich, former Group Chairman of Siemens AG, was elected as the new Chairman of the Supervisory Board at the constitutive meeting held after the Annual General Meeting.

Dr. Molly P. Zhang resigned from the Supervisory Board effective at the end of the 2021 fiscal year. At the request of the Executive Board, with the support of the Supervisory Board, the Local Court of Düsseldorf then appointed Jörg Kampmeyer as a member of the Supervisory Board as of January 1, 2022.

“Mission 26” and climate strategy

The new “Mission 26” strategy was presented in London as part of the Capital Markets Day in September 2021. The plan for the next five years is based on seven key levers to accelerate sustainable, profitable growth. As part of this strategy, focal points include sustainability, innovation and digital solutions, new food and excellence initiatives in the areas of sales, service and operations. In addition, the company is examining targeted acquisitions. More information on these topics can be found on the homepage gea.com under “About us – Our Mission 26”.

GEA is firmly committed to reducing its own greenhouse gas emissions to net zero at all points of its value chain by 2040. The company has submitted this commitment and the 2030 interim targets for validation to the Science Based Targets Initiative (SBTi), a globally recognized, independent organization that reviews climate targets. The SBTi validated GEA’s greenhouse gas emissions reduction targets and confirmed that these targets follow the latest climate science and effectively contribute to achieving the 1.5 degree target set out in the Paris Climate Accord. More information can be found on our homepage gea.com under “Sustainability”.

The performance criteria defined for the 2022 tranche of the Performance Share Plan (LTI) address the key strategic objectives of sustainable, profitable growth by making both annual organic sales growth and the reduction of greenhouse gas emissions performance criteria considered for purposes of long-term variable remuneration. They are calibrated in such a way that they contribute toward the targets defined in the context of the “Mission 26” strategy (see below Grants, specifications and calibrations of strategic goals under the 2022 tranche).

Key figures for the 2021 fiscal year

For more information, please refer to the section Financial key figures of GEA in the Consolidated Financial Statements.

Remuneration of the members of the Executive Board

Remuneration awarded or due in 2021 and 2020

In the past fiscal year, the total remuneration paid to the active Executive Board members of GEA Group Aktiengesellschaft amounted to EUR 9,927,446. This comprised both an amount of EUR 2,480,000 for fixed annual salaries and an amount of EUR 7,385,589 for variable remuneration. As in previous fiscal years, the company did not grant any loans to members of the Executive Board in fiscal year 2021. In the reporting period, the option to reclaim variable compensation components was not exercised.

In fiscal year 2020, the total remuneration of the current members of the Executive Board (Stefan Klebert, Marcus A. Ketter, Johannes Giloth and Steffen Bersch) amounted to EUR 8,653,130. This comprised both an amount of EUR 2,425,355 for fixed annual salaries and an amount of EUR 6,162,563 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. In this respect, the vesting-oriented view is applied. 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 reported in the fiscal year in which the service period ends. The service period of the 2021 tranche of the LTI ended in the past fiscal year, which was therefore fully vested in fiscal year 2021. The LTI and the long-term share price component (2012 compensation system) are paid out in March of the financial year following the end of the three-year performance period and following a resolution by the Supervisory Board establishing the target achievement. Differences between the expected payout amount at the time of full vesting and the actual payout amount after the end of the performance period are disclosed in the year of payment. Thus, in fiscal year 2024, the corresponding difference for the 2021 tranche is included in the compensation 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 previous compensation system applied to all current Executive Board members in fiscal year 2021, and thus still applicable, can be found on the homepage gea.com under “Investors – Corporate governance – Remuneration”.

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[1]	Fringe benefits[2]	Company pension plan	Bonus/STI	LTI	
Executive Board members								
Stefan Klebert	Nov. 15, 2018/ Dec. 31, 2026	CEO	1,200,000	11,557	400,000	720,000	1,080,000	**3,411,557**
Previous year			1,140,000	10,958	400,000	720,000	1,080,000	**3,350,958**
Marcus A. Ketter	May 20, 2019/ May 19, 2027	CFO	680,000	19,460	300,000	408,000	612,000	**2,019,460**
Previous year			646,000	19,516	300,000	408,000	612,000	**1,985,516**
Johannes Giloth	Jan. 20, 2020/ Jan. 19, 2023	COO	600,000	30,840	200,000	360,000	540,000	**1,730,840**
Previous year			539,355	30,533	189,785	341,260	511,890	**1,612,823**
Total			**2,480,000**	**61,857**	**900,000**	**1,488,000**	**2,232,000**	**7,161,857**
Previous year			**2,325,355**	**61,007**	**889,785**	**1,469,260**	**2,203,890**	**6,949,297**

1) To help mitigate the economic impact of the Covid-19 pandemic, Stefan Klebert, Marcus A. Ketter and Johannes Giloth each waived 10 percent of their fixed annual salary during a six-month period over the 2020 fiscal year.
2) The fringe benefits mainly comprised the value of the use of a company car, accident insurance premiums, and – in individual cases – the reimbursement of costs incurred for travel, accommodation, relocation, as well as tax advisory services.

Base salary and variable components of the remuneration awarded or due for current Executive Board members:

(in EUR)			Base salary			Variable components			Total
	Date joined/ appointed until	Current position	Fixed annual salary[1]	Fringe benefits[2]	Pro-rata fixed remuneration components	Bonus/STI	LTI[3]	Pro-rata variable fixed remuneration components	
Current Executive Board members									
Stefan Klebert	Nov. 15, 2018/ Dec. 31, 2026	CEO	1,200,000	11,557	25%	1,440,000	2,133,664	75%	**4,785,221**
Previous year			1,140,000	10,958	28%	1,440,000	1,491,437	72%	**4,082,395**
Marcus A. Ketter	May 20, 2019/ May 19, 2027	CFO	680,000	19,460	26%	816,000	1,209,093	74%	**2,724,553**
Previous year			646,000	19,516	29%	816,000	845,164	71%	**2,326,680**
Johannes Giloth	Jan. 20, 2020/ Jan. 19, 2023	COO	600,000	30,840	26%	720,000	1,066,832	74%	**2,417,672**
Previous year			539,355	30,533	29%	682,521	706,900	71%	**1,959,309**
Total			**2,480,000**	**61,857**	**26%**	**2,976,000**	**4,409,589**	**74%**	**9,927,446**
Previous year			**2,325,355**	**61,007**	**29%**	**2,938,521**	**3,043,501**	**71%**	**8,368,384**

1) To help mitigate the economic impact of the Covid-19 pandemic, Stefan Klebert, Marcus A. Ketter and Johannes Giloth each waived 10 percent of their fixed annual salary during a six-month period over the 2020 fiscal year.
2) The fringe benefits mainly comprised the value of the use of a company car, accident insurance premiums, and – in individual cases – the reimbursement of costs incurred for travel, accommodation, relocation, as well as tax advisory services.
3) The service period for the 2021 tranche of the LTI ended on December 31, 2021; the service period for the 2020 tranche ended on December 31, 2020.

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[2]	Pro-rata variable remuneration components	
Former Executive Board members									
Steffen Bersch	Jan. 1, 2016/ Feb. 29, 2020	Ordinary Executive Board member	–	–	–	–	–	–	**–**
Previous year			100,000	4,205[3]	37%	60,000[4]	120,541	63%	**284,746**
Martine Snels	Oct. 1, 2017/ Dec. 31, 2019	Ordinary Executive Board member	–	3,327[5]	100%	–	–	–	**3,327**
Previous year			–	9,224[5]	100%	–	–	–	**9,224**
Niels Erik Olsen	Jan. 1, 2016/ Mar. 13, 2019	Ordinary Executive Board member	–	2,223[5]	100%	–	–	–	**2,223**
Previous year			–	22,978[5]	100%	–	–	–	**22,978**
Jürg Oleas	May 1, 2001/ Feb. 17, 2019	CEO	–	–	–	–	–	–	**–**
Previous year			8,575,416[6]	–	100%	–	–	–	**8,575,416**
Dr. Helmut Schmale	Apr. 22, 2009/ May 17, 2019	Ordinary Executive Board member	200,001	–	100%	–	–	–	**200,001**
Previous year			200,001	–	100%	–	–	–	**200,001**
Other former members and surviving dependents[7]			4,817,852	–	100%	–	–	–	**4,817,852**
Previous year			4,777,775	–	100%	–	–	–	**4,777,775**
Total			**5,017,853**	**5.550**	**100%**	**–**	**–**	**–**	**5,023,403**
Previous year			**13,653,192**	**36,407**	**99%**	**60,000**	**120,541**	**1%**	**13,870,140**

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 2020 and 2021.
2) The service period for the 2020 tranche of the LTI ended on December 31, 2020.
3) The fringe benefits for Steffen Bersch for fiscal year 2020 include pension subsidies of EUR 1,246.
4) For fiscal year 2020, Steffen Bersch received a pro-rata STI computed on the basis of 100 percent target achievement for the period from January 1, 2020 until his departure on February 29, 2020.
5) The fringe benefits were granted for the periods in which Martine Snels and Niels Erik Olsen were still in active service.
6) In fiscal year 2020, Jürg Oleas exercised his capitalization option with regard to the full pension benefits he was entitled to as of January 1, 2020. The capitalization amount of EUR 8,575,416.00 was paid out in January 2020
7) Individualized disclosure of the compensation 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 the fiscal year 2021 is in line with the previous 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 previous remuneration system. As shown in the following section and in the section "Disclosures relating to share-based remuneration for the period 2018 to 2021," the actual target achievement or the target achievement expected on the basis of the ratios as of December 31, 2021 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 previous remuneration system.

Target achievement and modifier multiplier applicable to the 2021 STI

In fiscal year 2021, EBITDA before restructuring measures and adjusted for effects from acquisitions totaled EUR 618.2 million, which corresponds to a 171 percent target achievement level (previous year: 165.7 percent). ROCE in fiscal year 2021, also adjusted for restructuring measures and effects from acquisitions, amounted to 27.6 percent (previous year: 17.3 percent), equivalent to a target achievement of 200 percent (previous year: 200 percent). This results in a target achievement level of 185.5 percent for the 2021 STI (previous year: 182.8 percent).

For the purpose of the 2021 STI, the Supervisory Board has set a modifier multiplier of 1.17 for Stefan Klebert (previous year: 1.14), 1.17 (previous year: 1.14) for Marcus A. Ketter and 1.17 for Johannes Giloth (previous year: 1.14), resulting in an overall target achievement of 200 percent as in the previous year. 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 2021 STI was based on the following targets and assessment criteria:

Modifier targets and assessment criteria applicable to the 2021 STI (range: 0.8–1.2)		S. Klebert	M. A. Ketter	J. Giloth
Individual performance	**Diversity concept** Limited discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board	•		
	Inventory management program Limited discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board			•
	Information security program Limited discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board		•	
Collective performance of the Executive Board	**ESG target concept** Limited discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board	•	•	•
Stakeholders and sustainability aspects	**Employee satisfaction** Limited discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board	•	•	•
	Customer satisfaction Discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board	•	•	•

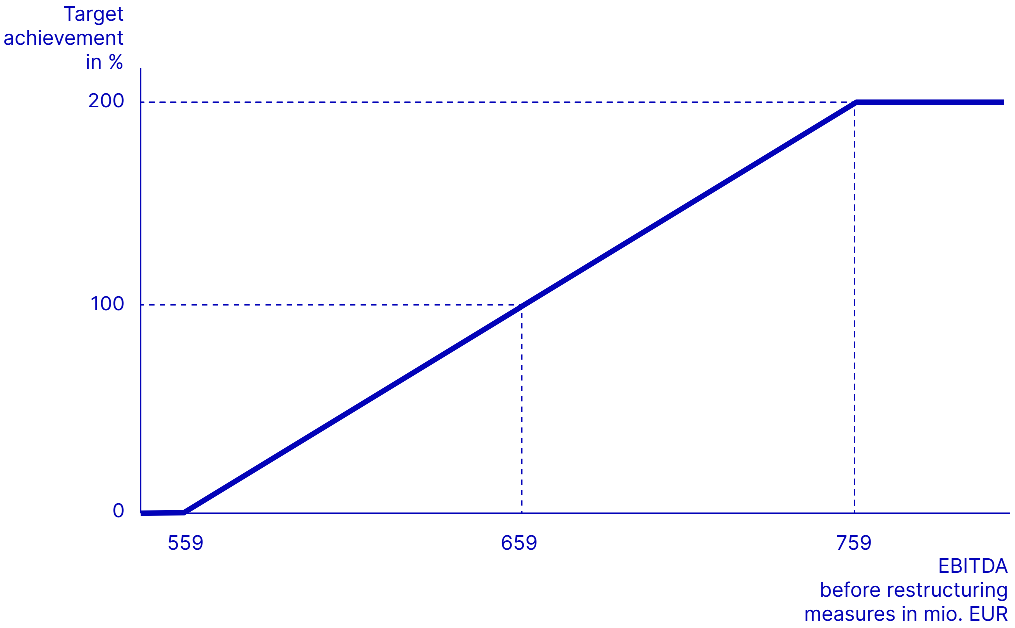
Calibration of financial performance targets and modifier criteria in relation to the 2022 STI

For the purpose of the 2022 bonus or STI, the Supervisory Board has calibrated the following financial performance targets:

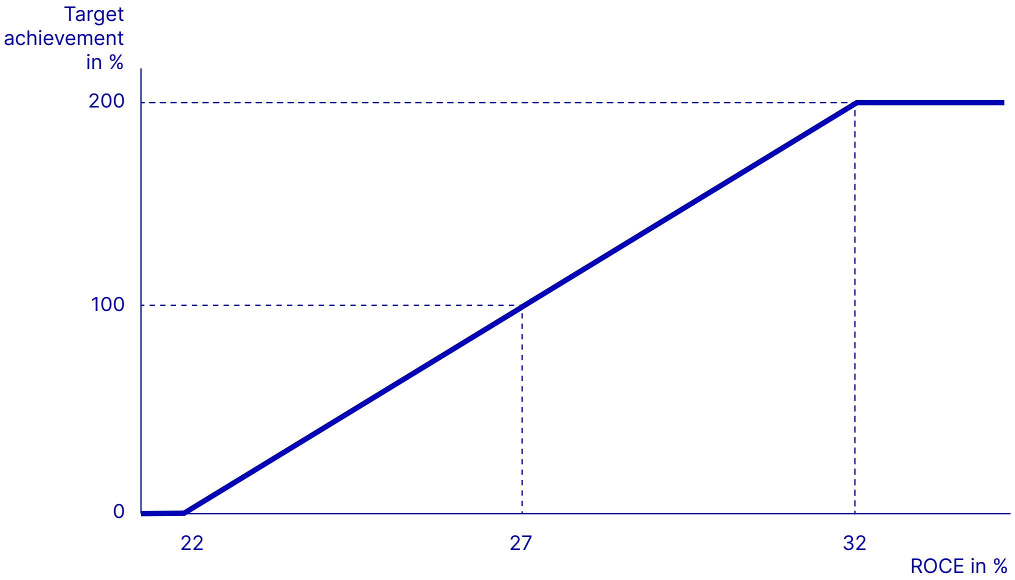
For the key performance indicator EBITDA before restructuring measures, 100 percent target achievement is given if the EBITDA before restructuring measures amounts to EUR 659 million in the fiscal year 2022. The target achievement corridor ranges from EUR 559 million, which would correspond to a target achievement of 0 percent, to EUR 759 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 in the fiscal year 2022 if ROCE is 27 percent. Here, the target achievement corridor ranges from 22 percent (where target achievement would correspond to 0 percent) to 32 percent (where target achievement would correspond to 200 percent). Linear interpolation is performed between these values.

Target achievement curve EBITDA before restructuring measures



Target achievement curve ROCE



The Supervisory Board defined the following modifier targets and assessment criteria for the STI 2022, which apply equally to all Executive Board members, based on the strategic targets:

modifier targets and assessment criteria applicable to the 2022 STI (range: 0.8–1.2)
Koszalin production site – production starts at the "Factory of the Future" Limited discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board
Availability of the uniform "globalSAP" ERP system Limited discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board
Employee satisfaction Limited discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board
Customer satisfaction Limited discretionary assessment by the Supervisory Board, taking into account certain parameters defined in advance by the Supervisory Board

Disclosures relating to share-based remuneration for the period 2018 to 2021

During the fiscal years 2019 to 2021, the Executive Board was granted share-based remuneration under the current remuneration system in the form of an annual tranche of the Performance Share Plan. The performance period of each of these tranches encompasses three fiscal years. The tranche granted in fiscal year 2021 is measured over a three-year period from 2021 to 2023 and will be paid out in fiscal year 2024.

For the 2019 tranche, whose performance period ended on December 31, 2021, and which will be paid out in the current fiscal year 2022, the final target achievement is 200% for EPS growth and 177 percent for the relative TSR. The target achievement corridor for EPS growth ranges from a Compound Annual Growth Rate (CAGR) of 3.0 percent during the performance period, which would correspond to target achievement of 0 percent, to a CAGR of 11.0 percent for the period 2019 to 2021, which would correspond to target achievement of 200 percent. Linear interpolation is performed between these values, so 7.0 percent equates to target achievement of 100 percent.

The tranches of the Performance Share Plan in the form of the previous remuneration system applicable in fiscal year 2021, like the 2019 tranche which will be paid out in the current fiscal year 2022, foster the long-term and sustainable development of the company with their three-year, forward-looking assessment basis, pronounced capital market orientation, and alignment with the long-term performance of GEA 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 vesting date (in number of shares)	Fair value as of the grant date (in EUR)	Fair value as of 12/31/2021 (in EUR)	Fair value as of 12/31/2020 (in EUR)
Stefan Klebert				
2019 tranche	50,358	1,080,000	2,160,000	1,837,161
2020 tranche	43,028	1,080,000	2,160,000	1,491,437
2021 tranche	50,664	1,080,000	2,133,664	–
Marcus A. Ketter				
2019 tranche	17,669	378,937	757,874	644,600
2020 tranche	24,383	612,000	1,224,023	845,164
2021 tranche	28,710	612,000	1,209,093	–
Johannes Giloth				
2019 tranche	–	–	–	–
2020 tranche	21,514[1]	511,890[2]	1,023,781[3]	706,900[4]
2021 tranche	25,332	540,000	1,066,832	–
Total Tranche 2019	**68,027**	**1,458,937**	**2,917,874**	**2,481,761**
Total Tranche 2020	**88,925**	**2,203,890**	**4,407,804**	**3,043,501**
Total Tranche 2021	**104,706**	**2,232,000**	**4,409,588**	**–**

1) Reflects a payout reduced pro rata temporis in March 2023 due to appointment having occurred on January 20, 2020.
2) Due to Johannes Giloth joining on January 20, 2020 and the resulting reduction in the payment of the 2020 tranche under the Performance Share Plan, the fair value at grant date was reduced accordingly to EUR 23.79 per performance share.
3) Based on a reduced fair value of EUR 47.59 per performance share (rounded) as of December 31, 2021.
4) Based on a reduced fair value of EUR 32.86 per performance share (rounded) as of December 31, 2020.

As a former member of the Executive Board, Steffen Bersch is entitled to payments from this remuneration component under the 2019 and 2020 tranches.

	Performance shares issued at vesting date (in number of shares)	Fair value as of the grant date (in EUR)	Fair value as of 12/31/2021 (in EUR)	Fair value as of 12/31/2020 (in EUR)
Steffen Bersch				
2019 tranche	25,179	540,000	1,080,000	918,580
2020 tranche	21,514[1]	87,288[2]	174,575[3]	120,541[4]

1) Payout reduced pro rata temporis in March 2023 due to departure on February 29, 2020.
2) Due to the departure of Steffen Bersch on February 29, 2020 and the resulting reduction in the payment of the 2020 tranche under the Performance Share Plan, the fair value at grant date was reduced accordingly to EUR 4.06 per performance share.
3) Based on a reduced fair value of EUR 8.11 per performance share (rounded) as of December 31, 2021.
4) Based on a reduced fair value of EUR 5.60 per performance share (rounded) as of December 31, 2020.

During fiscal years 2013 to 2019, each Executive Board member was granted share-based remuneration in the form of the long-term share price component under the 2012 remuneration system. The fair value as of December 31, 2021 of the last remaining 2019 tranche for the long-term share price component for Martine Snels amounted to EUR 119,616 (previous year: EUR 103,704).

In fiscal year 2021, 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 in question as of the balance sheet date and the change in fair value in relation to entitlements under share-based remuneration in the fiscal year in question) that was recognized in the consolidated IFRS financial statements amounted to EUR 3,125 thousand for Stefan Klebert (previous year: EUR 1,212 thousand); EUR 1,701 thousand for Marcus A. Ketter (previous year: EUR 747 thousand); EUR 1,384 thousand for Johannes Giloth (previous year: EUR 707 thousand); EUR 215 thousand for Steffen Bersch (previous year: EUR –19 thousand) and EUR 16 thousand for Martine Snels (previous year: EUR –17 thousand). Further information on the LTI and the long-term share price component is outlined in Note 6.3.3 of the Consolidated Financial Statements.

Grants, specifications and calibrations of strategic goals under the 2022 tranche

Based on a contractually agreed allotment and the arithmetic mean of the closing prices of GEA shares over the last three months prior to the start of the performance period on January 1, 2022 of EUR 43.74, the Executive Board members were granted the following number of performance shares under the fourth tranche of the LTI granted for the current fiscal year (2022 tranche):

Participants Tranche 2022	**Contractual target value (in EUR)**	Number of performance shares granted
Stefan Klebert	1,296,000	29,630
Marcus A. Ketter	734,000	16,781
Johannes Giloth	648,000	14,815
Total	**2,678,000**	**61,226**

The Supervisory Board has set and calibrated the following strategic targets, with a weighting of 40 percent within the LTI, for the 2022 tranche of the LTI:

Strategic targets and calibration of LTI 2022

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 60 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 SBTi
- Organic growth is also cancelled out for the purpose of assessing target attainment

Organic revenue growth
This target concerns the achievement of a defined level of organic annual revenue growth (adjusted for M&A and currency effects) over the performance period
- Target achievement of 100 percent is achieved if organic revenue growth amounts to 4 percent per year

*) A more detailed discussion can be found in the Sustainability Report on the homepage gea.com.

The strategic goals that are decisive for the calibration of the LTI 2022 are, first, the reduction of greenhouse gas emissions and, second, organic sales growth. The strategic goals thus support GEA's own target established as part of its climate strategy to reduce its own greenhouse gas emissions along its entire value chain to net zero by 2040. In addition to its Net Zero target for 2040, GEA has also presented interim targets in line with STBi for all emission areas. These interim targets for Scope 1 and 2 form the basis for assessing target achievement. GEA's climate strategy is the first building block of a comprehensive ESG strategy. In addition to climate protection, this ESG strategy also incorporates social and governance aspects. It will underpin the company's commitment to the United Nations Sustainable Development Goals and forms the basis of GEA's new corporate strategy "Mission 26", which is also reflected in the strategic goals. These goals also include achieving average organic revenue growth of 4.0 to 6.0 percent per year until 2026. As a result, two ambitious goals that will have a lasting impact on GEA's future and the environment are part of the Executive Board's LTI and Performance Share Plan, respectively.

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 Homepage gea.com under "Investors – Corporate governance – Remuneration").

Share ownership guidelines

Under both the prior and the new 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 Marcus A. Ketter 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.

After the first planned acquisition of GEA shares in spring 2020 under the Share Ownership Guidelines (SOG) could not be carried out for reasons related to capital markets law, a relevant share acquisition was made for the first time in April 2021 under the SOG. At present, members of the Executive Board hold the following number of GEA shares:

	SOG target			Shares held	
	% of fixed salary	Target value in EUR up to 12/31/2021	Target value in EUR from 01/01/2022	Number	Value in EUR as of 12/31/2021
Stefan Klebert	150	1,800,000	2,160,000	59,999	2,885,352
Marcus A. Ketter	100	680,000	816,000	2,784	133,883
Johannes Giloth	100	600,000	720,000	2,331	112,098

On payment of the STI 2021 and the LTI tranche 2019 at the end of March 2022, shares will again be purchased under the SOG for Marcus A. Ketter and Johannes Giloth.

Compliance with the maximum remuneration pursuant to section 87a (1) sentence 2 no. 1 of the AktG

The remuneration system to date did not include a rule on maximum remuneration. This was included in the new remuneration system that came into effect on January 1, 2021 and will be applied from January 1, 2022. Based on the new system, 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 2021. Details can be found in the new remuneration system available on the homepage gea.com under "Investors – Corporate governance – Remuneration".

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 3,051,557 for Stefan Klebert, EUR 1,815,460 for Marcus A. Ketter, and EUR 1,550,840 for Johannes Giloth. Compliance with maximum remuneration limits for fiscal year 2021 may only be conclusively assessed after the end of the performance period of the 2021 LTI tranche on December 31, 2023. 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 2021 fiscal year will be complied with.

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 Group's 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 or due in the fiscal year as presented above. The performance is determined on the basis of EBITDA before restructuring expenses, ROCE and revenue of GEA Group, and additionally on the basis of GEA Group AG'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 financial targets of the Executive Board's one-year variable remuneration. Annual organic sales growth was defined as one of two performance criteria for the tranche of the LTI granted for the current fiscal year 2022. 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 GEA Group AG and GEA Group Services GmbH employees 2021: 488; 2020: 428), which form a joint operation, and the employees of GEA Group companies in Germany (number of employees 2021: 6,146; 2020: 6,197).

Year-on-year change in %	2021[1]
Current Executive Board members	
Stefan Klebert	17.2[2]
Marcus A. Ketter	17.1[2]
Johannes Giloth	23.4[2]
Former Executive Board members	
Steffen Bersch	-100.0[3]
Martine Snels	-63.9
Niels Erik Olsen	-91.5
Jürg Oleas	-100.0
Dr. Helmut Schmale	–
Other former members and surviving dependents[4]	0.8
Earnings indicators	
EBITDA before restructuring measures GEA Group	17.3
ROCE GEA Group	1,079 bp
Revenue GEA Group	1.5
Net income for the fiscal year GEA Group AG	70.7
Employee remuneration	
Employees of GEA Group AG and GEA Group Services GmbH	1.21
Employees of GEA Group Germany	1.91

1) Over the next five 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 Gesetz zur Umsetzung der zweiten Aktionärsrechterichtlinie (ARUG II – German Act Implementing the Second Shareholder Rights Directive).
2) The change compared to the previous year is due to the higher expected payout amount (based on the fair value as of December 31 of the respective fiscal year) of the tranche of the LTI vested in the fiscal year compared to the previous year.
3) The change compared to the previous year is due to the departure of Steffen Bersch from the Executive Board as of February 29, 2020.
4) Individualized disclosure 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.

Benefits in the event of regular departure from the Executive Board

As far as the company pension scheme is concerned, both the current and the new remuneration system provide for a contribution-oriented defined benefit that serves as a standard. 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 surviving dependents' 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 monthly pension contributions amount to EUR 33,333.00 (gross) for Stefan Klebert, EUR 25,000.00 (gross) for Marcus A. Ketter and EUR 16,666.67 (gross) 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, Marcus A. Ketter and Johannes Giloth. There were no changes to such 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 2021 fiscal year in accordance with IFRS are listed individually in the table below.

(in EUR)	Pension obligation* as of 12/31/2021	Service cost in fiscal year 2021
Stefan Klebert	937,027	400,000
Marcus A. Ketter	524,331	300,000
Johannes Giloth	210,169	200,000
Total	**1,671,527**	**900,000**

*) Pension obligation before plan assets.

Benefits in the event of premature departure from the Executive Board

The following rules apply to Stefan Klebert, Marcus A. Ketter and Johannes Giloth. They did not change during the reporting period compared with the previous year:

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. The new remuneration system, which will apply to Stefan Klebert, Marcus A. Ketter and Johannes Giloth for the first time in fiscal year 2022, includes the following terms in connection with the LTI: 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 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.

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 appointment on grounds that would have given the company good cause for extraordinary termination under section 626 (1) of the BGB, the right to STI lapses for such fiscal year along with claims to 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 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 service agreements concluded with the 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

In the fiscal year under review, the expenses incurred for the Supervisory Board amounted to EUR 1,326 thousand (previous year: EUR 1,403 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 Committee, the Audit Committee and the Innovation Committee in 2021 compared with the previous year:

(in EUR)	Remuneration Supervisory Board	Presiding Committee remuneration	Remuneration Audit Committee	Remuneration Technology Committee	Attendance fee	**Totals**
Dr. Perlet	41,096	23,014	11,507	–	5,000	**80,616**
Previous year	125,000	70,000	35,000	–	21,000	**251,000**
Helmrich	83,904	46,986	23,493	–	10,000	**164,384**
Previous year	–	–	–	–	–	**–**
Löw*	24,658	11,507	–	–	4,000	**40,164**
Previous year	75,000	35,000	–	–	12,000	**122,000**
Gröbel*	66,781	35,000	–	–	12,000	**113,781**
Previous year	50,000	35,000	–	–	12,000	**97,000**
Bastaki	16,438	11,507	–	–	4,000	**31,945**
Previous year	50,000	35,000	–	–	12,000	**97,000**
Claas*	33,562		23,493		8,000	**65,055**
Previous year	–	–	–	–	–	**–**
Eberlein	–	–	–	–	–	**–**
Previous year	37,432	–	52,404	–	15,000	**104,836**
Falk*	33,562	23,493	–	16,781	10,000	**83,836**
Previous year	–	–	–	–	–	**–**
Prof. Dr. Fleischer	33,562	–	–	16,781	7,000	**57,342**
Previous year	–	–	–	–	–	**–**
Hall	50,000	35,000	–	–	12,000	**97,000**
Previous year	50,000	35,000	–	–	11,000	**96,000**
Hubert*	16,438	11,507	–	8,219	4,000	**40,164**
Previous year	50,000	35,000	–	25,000	11,000	**121,000**
Kämpfert	50,000	–	11,507	–	8,000	**69,507**
Previous year	50,000	–	35,000	–	16,000	**101,000**
Kerkemeier*	16,438	–	–	–	2,000	**18,438**
Previous year	50,000	–	–	–	8,000	**58,000**
Prof. Dr. Köhler	50,000	–	70,000	–	11,000	**131,000**
Previous year	12,568	–	16,257	–	2,000	**30,825**
Krönchen*	50,000	–	35,000	25,000	11,000	**121,000**
Previous year	50,000	–	35,000	25,000	19,000	**129,000**
Lei	33,562	–	–	–	5,000	**38,562**
Previous year	–	–	–	–	–	**–**
Prof. Dr. Röhner*	33,562	–	–	–	5,000	**38,562**
Previous year	–	–	–	–	–	**–**
Spence	16,438	–	–	8,219	2,000	**26,658**
Previous year	50,000	–	–	25,000	10,000	**85,000**
Dr. Zhang	50,000	–	–	50,000	8,000	**108,000**
Previous year	50,000	–	–	50,000	10,000	**110,000**
Total	**700,000**	**198,014**	**175,000**	**125,000**	**128,000**	**1,326,014**
Previous year	**700,000**	**245,000**	**173,661**	**125,000**	**159,000**	**1,402,661**

*) The company and the external employee representatives remit their respective remuneration to the Hans Böckler Foundation in accordance with applicable guidelines.

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 GEA Group, and additionally on the basis of GEA Group AG'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 GEA Group AG and GEA Group Services GmbH employees 2021: 488; 2020: 428), which form a joint operation, and the employees of GEA Group in Germany (number of employees 2021: 6,146; 2020: 6,197).

Year-on-year change in %	2021
Supervisory Board	
Dr. Perlet	–67.9
Helmrich	–
Löw	–67.1
Gröbel	17.3
Bastaki	–67.1
Claas	–
Eberlein	-100.0
Falk	–
Prof. Dr. Fleischer	–
Hall	1.0
Hubert	–66.8
Kämpfert	–31.2
Kerkemeier	–68.2
Prof. Dr. Köhler	325.0
Krönchen	–4.7
Lei	–
Prof. Dr. Röhner	–
Spence	–68.6
Dr. Zhang	–1.8
Prof Dr. Bauer	–

Year-on-year change in %	2021
Earnings indicators	
EBITDA before restructuring measures GEA Group	17.3
ROCE GEA Group	1,079 bp
Revenue GEA Group	1.5
Net income for the fiscal year GEA Group AG	70.7
Employee remuneration	
Employees of GEA Group AG and GEA Group Services GmbH	1.21
Employees of GEA Group Germany	1.91

*) Over the next five 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).

Independent Auditor's Report

To the GEA Group Aktiengesellschaft

REPORT ON THE AUDIT OF THE REMUNERATION REPORT

We have audited the attached remuneration report of **GEA Group Aktiengesellschaft, Düsseldorf**, for the financial year from 1 January 2021 to 31 December 2021, including the related disclosures, prepared to meet the requirements of Section 162 AktG [Aktiengesetz: German Stock Corporation Act].

Responsibility of Management and the Supervisory Board

The management and the Supervisory Board of GEA Group Aktiengesellschaft, Düsseldorf, 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 control as they have determined necessary to enable the preparation of the remuneration report that is free from material misstatement, whether due to fraud or error.

Auditor's responsibility

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 of 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 judgment. 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 assurance opinion.

Opinion

In our opinion, on the basis of the knowledge obtained in the audit, the remuneration report for the financial year from 1 January 2021 to 31 December 2021, including the related disclosures, complies in all material respects with the financial reporting requirements of Section 162 AktG.

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 Aktiengesellschaft, Düsseldorf, are set out in the General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms] as amended on January 1, 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 1, 2022

KPMG AG
Wirtschaftsprüfungsgesellschaft
[Original German version signed by:]

Dr. Zeimes	Jessen
Wirtschaftsprüfer	Wirtschaftsprüfer
[German public auditor]	[German public auditor]

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position, and profit or loss of the group, and the 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 1, 2022

Stefan Klebert Johannes Giloth Marcus A. Ketter

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*
- Hoberg & Driesch GmbH, Düsseldorf/Germany, Member of the Shareholders' Committee
- 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

Johannes Giloth, Neubiberg/ Germany, Member of the Executive Board and COO

Marcus A. Ketter, Düsseldorf/Germany, CFO – Chief Financial Officer

Supervisory Board

Dr. Helmut Perlet/Germany, Chairman of the Supervisory Board of GEA Group Aktiengesellschaft (until April 30, 2021)

Klaus Helmrich, Nuremberg/Germany, former member of the Executive Board of Siemens AG and CEO Siemens Digital Industries (until March 31, 2021),
Chairman of the Supervisory Board of GEA Group Aktiengesellschaft (since April 30, 2021)

a)
- ZF Friedrichshafen AG, Friedrichshafen/Germany, Member of the Supervisory Board (since January 1, 2022)

b)
- EOS Holding AG, Krailing/Germany, Member of the Supervisory Board (until May 18, 2021)
- Festo Management SE, Esslingen a. Neckar/Germany, Member of the Supervisory Board (since May 1, 2021)

Kurt-Jürgen Löw, Ebernhahn/Germany, Deputy Chairman of the Supervisory Board (until April 30, 2021)

b)
- GEA Westfalia Separator Group GmbH, Oelde/Germany, Deputy Chairman of the Supervisory Board*) (until June 30, 2021)

Rainer Gröbel, Sulzbach/Ts./Germany, Deputy Chairman of the Supervisory Board (since April 30, 2021),
Managing Director of ACADEMY of LABOUR gGmbH, Frankfurt am Main/Germany

b)
- Schunk GmbH, Heuchelheim/Germany, Chairman of the Supervisory Board

Ahmad M. A. Bastaki, Safat/Kuwait (until April 30, 2021),
Executive Director, Planning and Senior Management of Kuwait Investment Authority

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

Claudia Claas, Oelde/Germany (since April 30, 2021),
Deputy Chairwoman of the Group Works Council of GEA Group Aktiengesellschaft

Roger Falk, Prichsenstadt/Germany (since April 30, 2021),
Chairman of the Group Works Council of GEA Group Aktiengesellschaft

Prof. Dr.- Ing. Jürgen Fleischer, Karlsruhe/Germany (since April 30, 2021)
Chairman of the Innovation Committee of GEA Group Aktiengesellschaft (since January 1, 2022),
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
d) • ARKU Mechanical Engineering Ltd., 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

Colin Hall, London/UK (since April 30, 2021), Investment Partner of Groupe Bruxelles Lambert, Belgium, and Vice-Chairman of the Board of Directors of Sienna Capital S.a.r.l., Luxemburg

c) • Imerys S.A., France, Member of the Board of Directors
• LafargeHolcim, Switzerland, Member of the Board of Directors
• Avanti Acquisition Corp., Cayman Islands, Member of the Board of Directors
d) • Ergon Capital Partners S.A., Belgium, Member of the Board of Directors
• Ergon Capital Partners II S.A., Belgium, Member of the Board of Directors
• Marnix French ParentCo (Webhelp group), Member of the Supervisory Board
• Globality Inc., California/USA, Member of the Board of Directors (since January 7, 2021)

With regard to recommendation C.4 GCGC, the Supervisory Board is of the opinion that the mandate activities at the above-mentioned non-listed portfolio companies of Groupe Bruxelles Lambert do not constitute functions comparable to a supervisory board mandate at a listed company. In this respect, the recommendation C.4 DCGC is still complied with.

All mandates held by Colin Hall are mandates in portfolio holdings of Group Bruxelles Lambert.

Michaela Hubert, Prichsenstadt/Germany (until April 30, 2021),
Chairwoman of the General Works Council of GEA Brewery Systems GmbH

Jörg Kampmeyer, Würzburg/Germany (since January 1, 2022),
Managing Partner of Gebr. Knauf KG

Michael Kämpfert, Düsseldorf/Germany (since April 30, 2021),
Vice President Business HR of GEA Group Aktiengesellschaft

Eva-Maria Kerkemeier, Herne/Germany, Member of the Supervisory Board of GEA Group Aktiengesellschaft (until April 30, 2021)

Prof. Dr. Annette G. Köhler, Düsseldorf/Germany (since April 30, 2021),
Chairwoman of the Audit Committee of GEA Group Aktiengesellschaft (since April 30, 2021),
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
b) • HVB UniCredit Bank AG, Munich/Germany, Member of the Supervisory Board, the Audit Committee, the Nomination Committee and the Remuneration Control Committee
c) • DKSH Holding AG, Zurich/Switzerland, Member of the Board of Directors and Chairwoman of the Audit Committee

Brigitte Krönchen, Oelde/Germany (since April 30, 2021),
Deputy Chairwoman of the Group Works Council of GEA Group Aktiengesellschaft

b) • GEA Farm Technologies GmbH, Bönen/Germany, Deputy Chairwoman 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

Prof. Dr. Cara Röhner, Frankfurt am Main/Germany (since April 30, 2021),
Trade Union Secretary, Executive Board Administration of IG Metall. Frankfurt am Main, Germany

Holly Lei, Shanghai/China (since April 30, 2021),
Executive, Global SVB, President of Covestro China

d)
- SCIP International Chemical Expertise Advisory Committee, Shanghai/China, Chairwoman
- AICM (Association of International Chemical Manufactory, Beijing/China, Member of the Advisory Board
- Shanghai Chapter of the European Union Chamber of Commerce in China/Shanghai, Member of the Board

Jean E. Spence, Marco Island/FL/USA (until April 30, 2021),
Management Consultant, President, JES Consulting LLC

c)
- TreeHouse Foods, Inc., Oak Brook/IL/USA, Member of the Board of Directors
- Agri-Food Tech Fund of Praesidium Private Investments, Praesidium SGR S.p.A, Milan, Italy, Member of the Advisory Board (since February 1, 2021)

Dr. Molly P. Zhang, Aurora/CO/USA (until December 31, 2021),
Chairwoman of the Innovation Committee of GEA Group Aktiengesellschaft (until December 31, 2021)

c)
- Gates Industrial Corporation Plc, Denver, Colorado/USA, Member of the Board of Directors
- Aqua Metals Incl. McCarran, Nevada/USA, Member of the Board of Directors, of the Audit Committee and the Nomination and Governance Committee

d)
- Enerkem, Montreal/Canada, Member of the Board of Directors and Adviser
- Recology, San Francisco/USA, Member of the Board of Directors, Chairwoman of the Innovation and member of the Compensation Committee (since June 7, 2021)

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, 2021)

Mediation Committee in accordance with section 27(3) of the Mitbestimmungsgesetz (MitbestG – German Co-determination Act)
Klaus Helmrich, Chairman
Claudia Claas
Prof. Dr. Jürgen Fleischer
Rainer Gröbel

Presiding Committee
Klaus Helmrich, Chairman
Roger Falk
Rainer Gröbel
Colin Hall

Audit Committee
Prof. Dr. Annette G. Köhler, Chairwoman (independent financial expert within the meaning of section 100(5) of the Aktiengesetz (AktG – German Stock Corporation Act), field “Audit of the financial statements”)
Claudia Claas
Klaus Helmrich
Brigitte Krönchen (second financial expert within the meaning of section 100(5) of the Aktiengesetz (AktG – German Stock Corporation Act), field “Accounting”)

Innovation Committee
Dr. Molly P Zhang, Chairwoman (until December 31, 2021)
Prof. Dr. Jürgen Fleischer, Chairman (since January 1, 2022)
Roger Falk
Jörg Kampmeyer (since January 1, 2022)
Brigitte Krönchen

Nomination Committee
Klaus Helmrich, Chairman
Colin Hall
Dr. Molly P. Zhang (until December 31, 2021)
Prof. Dr. Annette G. Köhler (since January 1, 2022)

Key Figures by Quarter

	Q1 2021	Q1 2020	Q2 2021	Q2 2020	Q3 2021	Q3 2020	Q4 2021	Q4 2020	**2021**	**2020**	**2019**
Order intake (EUR million)											
Separation & Flow Technologies	341.4	332.3	355.9	287.6	345.4	283.5	316.4	308.1	**1,359.1**	**1,211.6**	**1,271.8**
Liquid & Powder Technologies	387.7	565.7	389.3	334.8	510.2	315.7	460.5	449.1	**1,747.7**	**1,665.3**	**1,828.5**
Food & Healthcare Technologies	244.0	222.4	264.1	192.1	245.5	205.9	279.1	233.8	**1,032.8**	**854.2**	**914.4**
Farm Technologies	198.4	177.4	184.5	155.9	158.3	165.9	160.9	177.9	**702.1**	**677.0**	**641.8**
Heating & Refrigeration Technologies	168.8	184.4	161.6	138.4	156.7	161.3	130.0	141.2	**617.0**	**625.3**	**707.0**
GEA*	**1,282.4**	**1,376.7**	**1,293.7**	**1,034.1**	**1,349.9**	**1,055.1**	**1,296.5**	**1,237.1**	**5,222.5**	**4,703.0**	**4,931.1**
Revenue (EUR million)											
Separation & Flow Technologies	278.6	278.4	311.7	312.8	322.1	294.5	324.9	306.5	**1,237.2**	**1,192.1**	**1,238.3**
Liquid & Powder Technologies	344.6	385.5	381.8	422.6	394.3	417.4	425.3	440.2	**1,546.1**	**1,665.7**	**1,729.0**
Food & Healthcare Technologies	222.9	212.5	233.6	236.9	224.0	215.3	256.5	230.4	**937.1**	**895.1**	**963.0**
Farm Technologies	131.0	141.4	147.3	144.6	175.1	165.2	180.5	173.6	**633.9**	**624.8**	**656.3**
Heating & Refrigeration Technologies	145.0	169.8	144.5	164.2	141.3	155.2	153.1	173.6	**584.0**	**662.8**	**704.9**
GEA*	**1,065.4**	**1,093.8**	**1,155.6**	**1,164.5**	**1,199.3**	**1,145.9**	**1,282.6**	**1,230.8**	**4,702.9**	**4,635.1**	**4,879.7**
EBITDA (EUR million)											
Separation & Flow Technologies	61.5	59.7	75.3	61.9	83.3	63.6	82.2	55.9	**302.4**	**241.1**	**230.8**
Liquid & Powder Technologies	22.7	8.1	36.0	37.3	43.6	31.7	45.1	47.0	**147.4**	**124.1**	**55.3**
Food & Healthcare Technologies	21.1	16.4	20.8	21.5	25.0	18.9	21.2	17.6	**88.1**	**74.3**	**56.8**
Farm Technologies	13.7	10.7	15.8	16.6	24.2	22.6	19.6	11.9	**73.3**	**61.7**	**45.3**
Heating & Refrigeration Technologies	0.8	17.4	15.4	13.6	16.6	16.1	4.7	13.0	**37.5**	**60.0**	**53.1**
GEA*	**105.5**	**96.9**	**149.6**	**132.2**	**164.4**	**134.8**	**149.7**	**114.5**	**569.3**	**478.3**	**374.4**
EBITDA before restructuring measures (EUR million)											
Separation & Flow Technologies	61.8	59.8	74.1	63.7	83.6	67.8	83.0	64.1	**302.5**	**255.3**	**247.1**
Liquid & Powder Technologies	23.4	8.2	36.1	37.4	43.7	30.9	46.8	43.7	**150.0**	**120.2**	**87.2**
Food & Healthcare Technologies	21.5	16.5	21.4	21.6	25.8	19.9	31.8	21.0	**100.4**	**79.0**	**66.8**
Farm Technologies	13.4	10.9	16.1	14.9	24.6	21.5	22.0	19.7	**76.1**	**66.9**	**60.3**
Heating & Refrigeration Technologies	11.9	17.4	15.5	13.0	17.0	15.5	15.1	12.8	**59.5**	**58.8**	**58.3**
GEA*	**121.2**	**105.0**	**153.7**	**140.4**	**169.9**	**145.3**	**180.1**	**141.8**	**624.8**	**532.5**	**479.2**
EBITDA margin before restructuring measures (%)											
Separation & Flow Technologies	22.2	21.5	23.8	20.4	26.0	23.0	25.6	20.9	**24.5**	**21.4**	**20.0**
Liquid & Powder Technologies	6.8	2.1	9.5	8.9	11.1	7.4	11.0	9.9	**9.7**	**7.2**	**5.0**
Food & Healthcare Technologies	9.6	7.8	9.2	9.1	11.5	9.3	12.4	9.1	**10.7**	**8.8**	**6.9**
Farm Technologies	10.3	7.7	10.9	10.3	14.1	13.0	12.2	11.4	**12.0**	**10.7**	**9.2**
Heating & Refrigeration Technologies	8.2	10.2	10.7	7.9	12.0	10.0	9.9	7.4	**10.2**	**8.9**	**8.3**
GEA*	**11.4**	**9.6**	**13.3**	**12.1**	**14.2**	**12.7**	**14.0**	**11.5**	**13.3**	**11.5**	**9.8**

*) Differences in the figures for the Group as a whole result from firgures not shown for Other/consolidation.

FINANCIAL CALENDAR

April 28, 2022
Annual Shareholders' Meeting for 2021

May 6, 2022
Quarterly Statement for the period to March 31, 2022

August 10, 2022
Half-yearly Financial Report for the period to June 30, 2022

November 4, 2022
Quarterly Statement for the period to September 30, 2022

GEA Stock: Key data

WKN	660 200
ISIN	DE0006602006
Reuters code	G1AG.DE
Bloomberg code	G1A.GR
Xetra	G1A.DE

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