INDEX FOR MANAGEMENT REPORT

FUNDAMENTAL FEATURES OF THE GROUP

BUSINESS MODEL AND SEGMENTS

DEUTZ is one of the world's leading manufacturers of drive systems for off-highway applications. The Company was founded in 1864 and employed around 5,000 people worldwide at the end of 2022. Its core competencies are the development, production, and distribution of drive solutions in the power range up to 620 kW for off-highway applications. The current portfolio extends from diesel and gas engines to hybrid, all-electric, and hydrogen drives. DEUTZ drives are used in a wide range of applications including construction equipment, agricultural machinery, material handling equipment such as forklift trucks and lifting platforms, commercial vehicles, rail vehicles, and boats used for private or commercial purposes. DEUTZ also offers a comprehensive range of digital and analog services through more than 800 sales and service partners in over 130 countries.

Since January 1, 2022, the Company's operating activities have been divided into the segments Classic and Green. See also 'Strategy and objectives', p. 22 onward. The Classic segment, which generated around 97 percent of consolidated revenue in 2022, encompasses all activities related to the development, production, distribution, and servicing of diesel and gas engines as well as the equity-accounted joint venture with Chinese construction equipment manufacturer SANY. The Green segment consists of all activities related to new and alternative drive solutions. This includes hydrogen engines, all-electric and hybrid-electric drives, mobile rapid charging stations, the related service business, and the subsidiaries Torqeedo and Futavis.

MARKET AND COMPETITIVE ENVIRONMENT

Sales of engines based on efficient diesel technology, which is the current core business of the DEUTZ Group, are focused on the Europe, North America and Asia regions, and in the case of the latter particularly China. The Group faces competition from rival engine suppliers, mainly in western Europe, North America, and Asia.

DEUTZ's main competitors by application[1,2]

Application segments	Applications	Main competitors[3]
Construction Equipment	Excavators Wheel loaders Pavers Mining equipment	Cummins, USA Isuzu, Japan Weichai, China Yanmar, Japan
Material Handling	Forklift trucks Telehandlers Lifting platforms Ground support equipment	Cummins, USA Isuzu, Japan Volkswagen, Germany Yanmar, Japan
Agricultural Machinery	Tractors Harvesters	Fiat Powertrain, Italy John Deere, USA Perkins, UK Yanmar, Japan
Stationary Equipment	Gensets Pumps Compressors	Cummins, USA Kubota, Japan Perkins, UK Yanmar, Japan
Miscellaneous	Rolling stock Special vehicles Marine engines	Cummins, USA Ford, USA General Motors, USA Kubota, Japan

[1] Power Systems Research, October 2022, power output from 19 to 620 kW.
[2] With the exception of Weichai, Chinese competitors are not listed here due to the lack of comparable quality standards and the significantly lower cost structures.
[3] In alphabetical order.

In February 2023, the EU parliament resolved that, from 2035 onward, newly registered passenger cars and light commercial vehicles up to 3.5 tonnes will no longer be allowed to emit any greenhouse gases. This effectively prohibits the use of gasoline and diesel engines in these vehicles. The resolution does not yet apply to medium- and heavy-duty trucks or to off-highway applications, which means that it does not affect any vehicles that fall under DEUTZ's current or future application segments. However, it can be assumed that DEUTZ's supplier base will change in the future as a result of the decision.

STRATEGY AND OBJECTIVES

The DEUTZ Group's primary objective is to permanently establish itself among the top three independent drive manufacturers and to offer a fully carbon-neutral product and technology portfolio by no later than 2050. At the same time, the Company wants to achieve profitable and sustainable growth and has set itself clear medium-term targets for 2025: revenue in excess of €2.5 billion and an EBIT margin before exceptional items of between 6 percent and 7 percent. See also 'Outlook for 2025', p. 69.

DEUTZ aims to achieve its financial objectives while also fulfilling its environmental, social, and corporate responsibilities. This ambition is reflected in the name of the new sustainability strategy, Taking Responsibility. In line with this strategy, DEUTZ has defined various sustainability-related targets, which alongside the reduction of emissions cover topics such as respect for human rights, diversity, and sustainability in the supply chain. See also the non-financial report, p. 92 onward.

»Dual+« strategy DEUTZ updated its overarching growth strategy in 2022, and in doing so put in place a clear framework for further business expansion. To achieve additional growth and greater profitability, DEUTZ will now be pursuing a Dual+ strategy, which is based on three key pillars: continued growth in DEUTZ's Classic business with optimized internal combustion engines, the creation of a new, zero-emission product ecosystem, and the expansion of the service business. The Company is thereby actively engaging with the challenges of the transition to more sustainable drive systems, and furthering its own evolution from engine manufacturer to provider of drive solutions.

For the implementation of the Dual+ strategy, DEUTZ has specified four strategic areas of action that form part of its Powering Progress program. It defined these priorities over the course of 2022 together with a range of sub-initiatives and sub-targets, some of which are short term (to be achieved by 2025), medium-term (to be achieved by 2030), and long term (target horizon extending beyond 2030). The overarching objective is to improve the Company's technological capabilities and commercial performance and accelerate the shift toward a modern corporate culture.

1. DEUTZ Classic The industry sectors that make up DEUTZ's customer base are in the middle of a fundamental shift toward greater carbon neutrality. The Company's objective is to empower its customers to carry out this transition successfully and capitalize on the resulting opportunities for growth.

DEUTZ believes that off-highway applications will still require the use of combustion engines if the transition to more sustainable drive systems is to be a smooth one. That is why the Classic segment will continue to underpin the growth of DEUTZ's business over the coming years, with the volume of production of these engines set to increase to, and stay at, more than 200,000 units a year. In order to achieve this target, DEUTZ is aiming for a sharp improvement in performance, for example by improving how it utilizes existing capacities and by implementing measures to increase efficiency. The aim is also to significantly increase profitability in the Classic business, for example by optimizing the product portfolio and the production network, by permanently establishing a market-oriented pricing policy, and by forging ahead with the automation and digitalization of operational and administrative processes. See also 'Purchasing and procurement', p. 32 onward, and 'Production and logistics' p. 29 onward.

The engine market is undergoing a process of consolidation as it adapts to the transition to more sustainable drive systems. From a commercial perspective, this presents an opportunity for achieving further growth in the Classic segment through targeted acquisitions and alliances. DEUTZ is looking to seize this opportunity and will therefore play an active role in a consolidating market. The Company made its first move at the end of January 2023 when it announced a partnership with Daimler Truck to develop and market medium- and heavy-duty engines. The alliance mainly covers two areas. First, DEUTZ will acquire the IP rights to Daimler Truck's medium-duty MDEG engines in the on-highway segment so that it can further develop them itself, including for use in off-highway applications, such as construction equipment, and in on-highway commercial vehicles. The IP for the MDEG engines also covers a gas variant, which provides a good basis for developing it into a hydrogen engine. DEUTZ will also acquire license rights from Daimler Truck so that it can further develop the engines in the heavy-duty HDEP series for use in off-highway applications such as large agricultural machinery. It will also market these engines itself. Daimler Truck will continue to build the heavy-duty engines, whereas the medium-duty engines will be assembled at DEUTZ. The engine variants that will be marketed by DEUTZ are scheduled to go into production in 2028. Daimler Truck will be taking a 4.19 percent stake in DEUTZ to underpin the alliance. This will make Daimler Truck one of the biggest single shareholders in DEUTZ AG.[1] See also 'Events after the reporting period', p. 201 onward.

2. DEUTZ Green Some sectors have already reached a consensus on how to achieve net zero. There appears to be no going back with electrification in the automotive sector, for example. But for engines that move large loads and are in continuous use, the Company believes that a number of technological options are available – or even a combination of them. For this reason, DEUTZ pursues a technology-neutral approach when adding to or refining its drive portfolio. This means improving the carbon footprint of the internal combustion engine, for example through the use of HVO[2], hydrogen, or synthetic fuels, and developing alternative drive systems such as electric drives.

Back in 2017, DEUTZ initiated its E-DEUTZ strategy aimed at developing a scalable portfolio of hybrid and all-electric drives to meet specific customer requirements. The Company's role is to act as both systems engineering partner and systems integrator. In other words, DEUTZ supplies a harmonized system consisting of an electric drive, battery, power electronics, and reduction gear for traction and work unit, along with control software for battery management, functional safety, and actuator logic. See also 'Research and development', p. 26 onward.

In addition to electrification, the Company believes that hydrogen drives, the use of e-fuels, and fuel cell technology are key elements of the drive-system mix that helps to create green off-highway applications. See also 'Research and development', p. 26 onward.

DEUTZ intends to expand its portfolio and value chains, for example by moving toward new business models beyond drivetrains, and in doing so to extend its offering across the entire product ecosystem. Reflecting the changing demands on infrastructure, the aim is to harness new value chains in areas such as the charging of electric machinery and supplying the fuel for hydrogen engines. This is illustrated by the DEUTZ PowerTree, a mobile rapid charging station for which DEUTZ received its first volume production order in 2022. See also 'Research and development', p.26 onward.

Over the next three years, DEUTZ plans to invest more than €100 million in the Green segment.

3. DEUTZ Service – the benefits of the Dual+ strategy DEUTZ engines are in operation for around ten years on average in some of the most unforgiving conditions. The Company's aim, going forward, is to do more to capitalize on the associated potential in service and aftersales, thereby growing not just the Classic and Green segments but also the service business. The objective is for revenue from this important business to rise to around €600 million by the end of 2025 while maintaining the same level of profitability. To achieve this, DEUTZ is focusing on expanding its global service network, including through acquisitions and strategic partnerships, expanding its portfolio of services by adding mainly digital concepts, and extending its service activities to non-DEUTZ engines.

Two acquisitions took place in the service business in 2022 as DEUTZ acquired its former service partners Ausma Motorenrevisie B.V. which is headquartered in Roden, Netherlands, and Kirkwell Ltd. (South Coast Diesels), based in Kildare, Ireland. The two companies sell and service diesel engines in their home markets, where they operate as multi-brand dealers. These acquisitions should enable DEUTZ to improve market penetration and expand its service business in these countries to include competitors' engines.

[1] Final completion of the two transactions is subject to the usual conditions, in particular with regard to confirmation of the recoverable amount of the non-cash contributions by a court-appointed auditor.
[2] Hydrotreated Vegetable Oils.

MAIN SITES AND BASIS OF CONSOLIDATION

DEUTZ AG is the executive and operating parent company in the DEUTZ Group; it is headquartered in Cologne, Germany. It has various investments in Germany and abroad, including several companies that perform sales and service functions, plus production facilities in China, Germany, Morocco, Spain, and the USA.

The subsidiary DEUTZ Engines (India) Private Limited, Pune, India, which had not previously been consolidated on grounds of materiality, was included in the consolidated financial statements of DEUTZ AG with effect from January 1, 2022 due to its increasing strategic significance for the DEUTZ Group.

The acquired entities, Ausma Motorenrevisie B.V., Roden, Netherlands, and Kirkwell Ltd. (South Coast Diesels), Kildare, Ireland, were included in the consolidated financial statements of DEUTZ AG for the first time with effect from May 1, 2022. DEUTZ Netherlands B.V., Dordrecht, Netherlands, which is indirectly wholly owned by DEUTZ AG, acquired all of the voting shares in Ausma Motorenrevisie B.V., Roden, Netherlands. DEUTZ AG directly acquired 100 percent of the voting shares in Kirkwell Ltd. (South Coast Diesels), Kildare, Ireland. The two acquirees specialize in selling and servicing diesel engines and operate as multi-brand dealers. As well as improved market penetration, the acquisitions will help DEUTZ to expand its service business in these countries to include competitors' engines.

In addition to DEUTZ AG, ten German companies (December 31, 2021: ten) and 28 foreign companies (December 31, 2021: 25) were included in the consolidated financial statements as at December 31, 2022. A complete list of DEUTZ AG's shareholdings as at December 31, 2022 can be found in the annex to the notes to the consolidated financial statements. See also 'Shareholdings of DEUTZ AG', p. 209 onward.

INTERNAL CONTROL SYSTEM

The DEUTZ Group defines its budget targets and medium-term corporate targets using selected key performance indicators (KPIs). The Group is managed on the basis of the following financial performance indicators in order to increase profitability and achieve sustained growth. These KPIs are alternative performance measures that are not defined in the International Financial Reporting Standards (IFRS). A reconciliation of these KPIs to the amounts recognized in the financial statements is provided below.

Key performance indicators[1]		2022	2021
Revenue growth	%	20.8	24.8
EBIT margin (before exceptional items)	%	4.6	2.3
Working capital ratio (average)	%	16.7	15.5
ROCE (before exceptional items)	%	9.0	4.1
R&D ratio	%	4.6	5.1
Free cash flow	€ million	– 16.6	21.6

[1] Alternative performance measures.

Revenue growth DEUTZ strives to steadily increase its revenue as the basis for the profitable growth of the Company. Revenue data is collated on a monthly basis, broken down by product group, application segment, and region. This data is provided to senior management promptly so that it can, if necessary, react quickly to changes as they materialize.

EBIT margin (before exceptional items) The main key performance indicator that DEUTZ uses to manage the Company's operating performance is the EBIT margin before exceptional items. It is based on the Group's earnings before interest and tax (EBIT). The EBIT figure is then adjusted for exceptional items and calculated as a percentage of revenue. Exceptional items are defined as significant income generated or expenses incurred that, due to their timing and/or specific nature, are unlikely to recur and are outside the scope of the Company's ordinary business activities. Adjusting for exceptional items helps to provide a better comparison of the Company's operating performance over time. Examples of exceptional items include impairment losses, reversals of impairment losses, gains and losses on the disposal of non-current assets, certain costs for strategic projects or organizational changes, restructuring costs, and income from the reversal of related provisions. The EBIT margin before exceptional items is, like revenue growth, calculated monthly and presented to senior management as part of internal reporting. Exceptional items amounted to €6.8 million in 2022. This was the net effect of the recognition of €9.1 million in provisions following several changes at senior management level, partly offset by a reversal of €2.3 million of provisions for decommissioning obligations that were recognized as part of the sale of the land at the former Cologne-Deutz site.

Working capital ratio (average) The Company's tied-up capital is managed using the average working capital ratio. This is the ratio of average working capital over the past four quarters to revenue for the preceding twelve months. Working capital comprises inventories plus trade receivables less trade payables. Along with revenue growth and the EBIT margin (before exceptional items), this key figure is calculated monthly and used by senior management to control the business.

ROCE[1] (before exceptional items) The return on the capital employed in the Group is measured and managed on an annual basis using the key figure ROCE (before exceptional items). This is calculated as follows:

ROCE[1]

€ million

	2022	2021
Total assets	1,475.4	1,290.1
Cash and cash equivalents	–54.9	–36.1
Trade payables	–291.5	–257.8
Other current and non-current liabilities	–81.9	–66.5
Capital employed	**1,047.1**	**929.7**
Capital employed (average for the year)[2]	**988.4**	**916.3**
EBIT before exceptional items (operating profit/loss)	**89.4**	**37.2**
ROCE (before exceptional items, %)	**9.0%**	**4.1%**

[1] Return on capital employed.
[2] Average of the opening and closing balances.

R&D ratio As a technology-focused company, DEUTZ considers the R&D ratio to be one of its most significant performance indicators in the internal management system. It is the ratio of research and development expenditure (after deducting grants) to revenue in the period in question. The R&D ratio is calculated monthly and reported to senior management.

Free cash flow The DEUTZ Group uses free cash flow as its main performance indicator for managing liquidity. It comprises net cash provided by, and used for, the operating activities and investing activities of the Group during the period in question less interest payments in connection with financing activities. This indicator shows what cash flow generated in the relevant year is available to the Company, e.g. for repaying liabilities or paying a possible dividend to shareholders. Free cash flow is reported to senior management monthly.

Based on the performance indicators described here, DEUTZ has set up an early warning system in order to be proactive and respond promptly. At the same time, it operates a robust system of causal analysis to ensure that it minimizes risks and makes the most of opportunities. Three times a year, an annual forecast is produced for all key performance indicators to ensure transparency with regard to the Company's business performance.

In addition to the financial performance indicators that form part of the management system described above, DEUTZ also employs other metrics to measure its economic performance. These include, but are not limited to, new orders received, revenue and unit sales on the income side, the working capital as at the reporting date with regard to tied-up capital, and earnings before interest, taxes, depreciation, and amortization (EBITDA).

[1] Return on capital employed.

Moreover, the Group net income and the DEUTZ AG statutory income in accordance with the German Commercial Code are significant factors for DEUTZ as regards dividend payments.

Continuous optimization of the control system Regardless of fluctuations in the economic cycle, one of the DEUTZ Group's overriding aims is the continuous optimization of its management systems. This essentially involves the annual planning of all performance indicators specified here, taking account of internal estimates of future business as well as benchmark figures from competitors. Each organizational unit prepares detailed plans for its area of responsibility, which are then coordinated with management. Both the specific unit sales and revenue targets and the customer and product-related targets (EBIT margins) are aligned with the operating units each year, taking groupwide objectives into consideration. This means that they are available at the relevant hierarchical level for use in the operational management of the segments.

Working capital targets are specified for the individual group companies in order to optimize the amount of capital tied up in the business. Specific targets for inventories, trade receivables, and trade payables are allocated to the individual employees with responsibility for the respective areas.

In order to secure the financial basis for its growth strategy, the Company has made the management of capital expenditure a central element in the management of tied-up capital, whereby specified budget figures set out the framework for the level of capital expenditure and development expenditure; actual requirements are derived from the medium-term planning of unit sales and the resulting requirements in terms of capacity and technologies. Annual budget meetings are held to coordinate individual projects, development expenditure, and planned capital expenditure with the groupwide financial planning process and to record the outcomes. An additional detailed review is carried out before projects are actually approved. To this end, standard investment appraisal methods are used, such as the internal rate of return, the amortization period, the net present value, the impact on earnings, and cost comparisons. A project with an appropriate budget is only approved if there is a clear positive outcome from this investment appraisal.

In addition to financial key performance indicators, DEUTZ is also guided by sustainability-related targets, which are reported on in detail in the separate non-financial report. See also the non-financial report, p. 92 onward.

RESEARCH AND DEVELOPMENT

Global emissions legislation requirements are not the only factors that shape the DEUTZ Group's research and development activities. Another major influence is the steady march of climate change together with the related debate about reducing harmful greenhouse gases. The 2015 Paris Agreement aims to limit global warming to 1.5 degrees. In contrast to cars and commercial vehicles, there are currently no laws or limits aimed at reducing the CO_2 emissions of mobile machinery. However, in order to achieve the Paris climate goals, DEUTZ believes it is also essential for the off-highway sector to play its part by reducing, as far as possible, the amount of harmful CO_2 emissions that it produces. DEUTZ is therefore actively pursuing the development of carbon-neutral drive systems in the off-highway segment, and aims to offer a climate-neutral product and technology portfolio by no later than 2050.

Open to new technologies Different applications with varying power requirements call for a range of drive solutions. Construction equipment and agricultural machinery, for example, need a great deal more power and energy than forklift trucks or lifting platforms. This is why DEUTZ is taking an open-minded approach to technology as it continues to develop its engine portfolio, essentially pursuing a two-pronged technology route toward carbon-neutral off-highway drive solutions. The Company firmly believes that internal combustion engines will continue to play a dominant role in certain mobile machinery applications in the years ahead, helping to facilitate a smooth transition to more sustainable drive systems. As regards these applications, DEUTZ's R&D activities are directed toward developing more climate-friendly internal combustion engines that can be run on alternative or sustainable energy sources such as HVO, hydrogen, or e-fuels. The second part of our two-pronged approach is to employ electric technology more widely.

Electric drive solutions The E-DEUTZ strategy, initiated back in 2017, plays an instrumental role in the development of green off-highway drive solutions. It aims to create a scalable product portfolio of electric drives and hybrid variants for specific customer requirements in off-highway applications. Electric drive systems are considered carbon-neutral, whereas hybrid systems reduce total carbon emissions during operation by downsizing engine capacity while maintaining overall system performance.

The E-DEUTZ development team is based at a number of sites. Over the next few years, it will be focusing on commercializing basic drive systems for customer applications in the low and medium power output range, for example for airport ground support equipment, construction equipment, and agricultural machinery.

In 2022, DEUTZ launched an electric 360-volt drive system on the market that is used in a range of applications such as electric crawler cranes and tracked dumpers, concrete pumps, telescopic handlers, and mini excavators. An integral element of this system is a 42 kWh lithium-ion battery developed by DEUTZ subsidiary Futavis; it meets the safety technology requirements for electric-powered road vehicles in accordance with the ECE R100 directive. DEUTZ plans to take the 360-volt system, which had reached preproduction by the end of 2022, to full production readiness in 2023.

Electric drive systems are restricted in their autonomy and take longer to 'refuel' (recharge) than conventional internal combustion engines. Which is why DEUTZ developed the PowerTree, a mobile rapid charging station for electric construction vehicles that won the 2022 Diesel Progress Summit Award in the category 'Electric or Hybrid Application of the Year'. Built into a ten-foot container, the PowerTree's integrated battery storage system means that machines can be charged on site even when there is no access to mains power. Downtime is reduced to a minimum thanks to a rapid-charge function that is capable of delivering up to 150 kW. DEUTZ delivered the first prototypes in 2021. The pilot phase concluded in 2022, and at the same time the latest version was launched on the market featuring an improved design that makes it easier to transport. It is now also possible to scale the battery capacity, allowing for optimal adaptation to the customer's technical and commercial requirements.

As regards the electric-powered marine sector, DEUTZ subsidiary Torqeedo stepped up the delivery of a project with Proton Motor Fuel Cell GmbH in 2022, having signed a cooperation agreement at the end of 2021. The project's goal is to develop a marine hydrogen-hybrid kit that enables the integration of hydrogen fuel cell charging into Torqeedo's electric boat propulsion systems. The hydrogen-electric Deep Blue hybrid system is designed to enable faster refueling, reduce speed and range limitations, and meet the emission requirements on ecologically sensitive waterways and in urban areas. On successful completion of the development project, which is being funded by the Bavarian government, the two companies plan to jointly market and industrialize the system.

In 2022, Torqeedo also joined a project funded by the German Federal Ministry of Education and Research (BMBF), the goal of which is to develop an energy-optimized drive system for maritime urban transport. Torqeedo is currently working on a charging infrastructure solution for the drive system with minimal transmission losses. This will then be integrated into the design of Torqeedo's Deep Blue system by making the necessary changes to hardware and software.

Hydrogen drive solutions In addition to electric drives, DEUTZ is pushing ahead with the development of internal combustion engines that use sustainable energy sources and can therefore be run on a carbon-neutral basis. Hydrogen is one of these sustainable energy sources that can be used as a fuel for carbon-neutral internal combustion engines. 'Green' hydrogen, which is generated from solar, hydro, or wind power, offers the possibility to convert energy from renewable sources into a storable gas for efficient use.

After embarking on the development of its first production-ready hydrogen engine, the TCG 7.8 H2, in 2021, DEUTZ made further progress with the implementation of its hydrogen strategy in 2022. A stationary H2 genset went into operation in a joint pilot project between DEUTZ and Cologne-based energy provider RheinEnergie. During the initial six-month test phase, the combination of a DEUTZ hydrogen engine and a generator is delivering electric power of up to 187.5 kilovolt-amperes, which is being fed directly into the local power grid. We believe that the solution being piloted by DEUTZ and RheinEnergie has huge potential for the local, carbon-neutral supply of energy in urban centers and areas without power infrastructure. DEUTZ has also joined forces with AVS and the Voith Group to develop a mobile H2 genset. It quietly and efficiently generates power for electrical applications, and if green hydrogen is used, it is carbon-neutral. This mobile electricity generator is ideal for locations without access to mains power, such as construction sites. Furthermore, DEUTZ joined the HyCET (Hydrogen Combustion Engine Trucks) research project consortium in 2022. HyCET aims to demonstrate the sustainability potential of trucks with hydrogen combustion engines in transportation logistics. As part of the project, two 18-tonne trucks will be developed and fitted with DEUTZ TCG 7.8 H2 hydrogen engines. The trucks will then be put through their paces by using them in the regular logistics operations of the BMW Group and DEUTZ. The four-year research project has a total investment volume of €19.5 million, of which €11.3 million will be funded by the German Federal Ministry for Digital and Transport (BMDV).

The hydrogen engine, which meets current emissions standards for zero-emission heavy commercial vehicles, is set to go into production at the end of 2024.

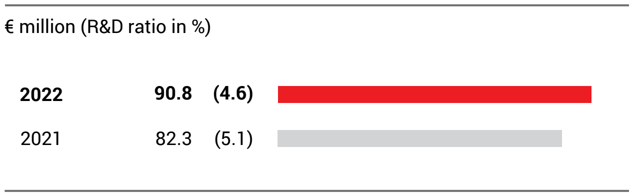
Diesel engines At the end of 2020, DEUTZ entered into a development partnership with John Deere Power Systems with a view to expanding its engine portfolio in the power range up to 130 kW. Both partners built additional validation engines in 2022 and trialed them on a test rig. The TCD 3.9 is scheduled to go into full production in 2025. The TCD 3.9 is particularly suited to industrial applications and, thanks to its drive architecture, can be made available in variants fueled by lower-emission alternatives such as gas and hydrogen.

DEUTZ also continued to develop its new TCD 5.2 engine in 2022. This diesel engine has four cylinders and a displacement of 5.2 liters and, looking ahead, is intended to replace larger six-cylinder engines. It does not use exhaust gas recirculation and is instead equipped with an efficient nitrogen oxide (NOx) aftertreatment system and a catalytic soot filter for reducing particulate emissions. The elimination of exhaust gas recirculation means the engine can be made more powerful, which allows its capacity and thus also fuel consumption to be reduced. Combustion efficiency is improved as well, reducing fuel consumption even further. The TCD 5.2 can be run on alternative fuels such as biodiesel and is also primed for hybrid operation thanks to the 48-volt electric drive option. After supplying prototypes for a range of customer applications in 2021 and 2022, DEUTZ plans to start full production in 2023.

At the end of 2022, DEUTZ approved its entire TCD engine range for operation with alternative diesel fuels. This means that paraffinic diesel fuels such as HVO (hydrotreated vegetable oil) can now be used to run all DEUTZ engines that meet the EU Stage V emissions standard. HVO is an innovative biofuel produced from biological waste, slurry, and used cooking oils and fats, and is therefore not in competition with food production. The use of HVO fuels reduces the carbon footprint of DEUTZ's internal combustion engines by up to 95 percent. Synthetic fuels, known as e-fuels, will complement paraffinic diesel fuels in the medium term.

R&D spending Expenditure on research and development in 2022 amounted to €99.5 million, compared with €88.0 million in the prior year. After the deduction of grants received from development partners and subsidies, expenditure rose from €82.3 million in 2021 to €90.8 million. R&D spending was thus above the range of €75 million to €85 million forecast in the 2021 annual report[1] as a result of the increase in activities to expand the Green portfolio. The proportion of capitalized development expenditure after deducting grants amounted to €5.3 million (2021: €6.8 million). The R&D ratio after deducting grants decreased from 5.1 percent in the prior year to 4.6 percent in 2022 due to the unusually sharp increase in revenue.

Research and development expenditure (after deducting grants)



R&D spending by the DEUTZ Classic segment after deducting grants came to €59.1 million (2021: €58.9 million) and that of the DEUTZ Green segment came to €31.7 million (2021: €23.4 million), with the latter accounted for mainly by the development of the 360-volt system and the hydrogen engine.

[1] The guidance published in the 2021 annual report (original guidance) was put under review at the time the report was published on March 14, 2022 due to the outbreak of war in Ukraine. No new guidance was provided for this indicator when the new full-year guidance was issued in November 2022; see quarterly statement dated November 9, 2022.

PRODUCTION AND LOGISTICS

DEUTZ Group production sites

Germany

- **ALSDORF/AACHEN (FUTAVIS)**
  Battery management systems
- **OBERPFAFFENHOFEN (TORQEEDO)**
  Electric boat drives, complete e-marine drive systems
- **HERSCHBACH**
  Components plant for manufacturing and pre-assembly of complex add-on components
- **COLOGNE-PORZ (DEUTZ AG HEADQUARTERS)**
  Assembly plant for production engines with capacities of less than 4 liters and between 4 and 8 liters, center of excellence for camshafts and crankshafts
- **COLOGNE-KALK**
  Center of excellence for crankcase manufacturing
- **ULM**
  Production of the DEUTZ PowerTree, Xchange engine remanufacturing, small production runs for crankcases, crankshafts, and gearwheels, and small production runs for engine series due to be discontinued

China

- **CHANGSHA (SANY JOINT VENTURE)**
  New high-performance-engine assembly plant for SANY trucks and construction equipment on a greenfield site; production of engines for trucks, construction equipment, and concrete pump applications on a brownfield site
- **TIANJIN**
  Assembly engines with capacities of less than 4 liters and with capacities of 6 liters for applications in lifting platforms, in forklift trucks, and in small construction equipment as part of the local contract manufacturing alliance with BEINEI

Spain

- **ZAFRA (DEUTZ SPAIN)**
  Center of excellence for the processing and pre-assembly of cylinder heads, crankcases for engines with capacities of less than 4 liters, conrods, and gearwheels

Morocco

- **SAPINO (MAGIDEUTZ)**
  Gensets

USA

- **PENDERGRASS/ATLANTA (DEUTZ CORPORATION)**
  Value-added production, Xchange engine remanufacturing

Ongoing global bottlenecks in the availability of materials, major delays in the supply chain, and pandemic-related outages presented huge challenges for the operational units and the internal and external supplier network in 2022. DEUTZ responded by rescheduling at short notice, and through significant extra work and comprehensive shortfall management. See also 'Purchasing and procurement', p. 32 onward, and 'Procurement market', p. 34.

Despite these challenges, DEUTZ significantly increased production output at all sites from 166,103 in 2021 to 184,965 DEUTZ engines[1] in 2022. DEUTZ improved overall efficiency at its European plants[2] by around 4.3 percent in 2022. It achieved this by implementing measures to increase efficiency in various production units and maintaining tight control over staffing levels. Ongoing **lean** management training across all sites and the delivery of lean projects and **kaizen** workshops further improved the cost base.

Undeterred by these operational challenges, DEUTZ continued to optimize its production processes and expand its global production network in 2022. In particular, the Company focused on initiating and implementing measures to improve technical and commercial performance, such as optimizing groupwide supply chain management (SCM), developing digitalization applications and Industry 4.0 applications, and expanding the global production network in China. The Company's overarching goal is to gradually increase production efficiency with the aim of being able to produce at least 200,000 engines a year in the Classic segment on a sustainable basis. See also 'Strategy and objectives', p. 22 onward.

Optimization of groupwide supply chain management As part of restructuring its supply chain, DEUTZ initiated a multi-stage project in 2020 that seeks to establish a future-proof value chain featuring reliable processes and flexible structures. The goal is to uncouple all stages within the value chain, from the procurement of raw materials to preproduction and the finished product, in order to simplify workflows and speed up response times, and thus add value for the customer. There was a continued focus in 2022 on creating the conditions for meeting systemic requirements.

In a world characterized by volatility, uncertainty, complexity, and ambiguity, DEUTZ needs to be able to react flexibly to ever-changing external factors. To ensure that it can do so, DEUTZ launched its Integrated Global Supply Chain initiative in 2022 as part of its Powering Progress program. The initiative will prepare the Company's complex supply chains for existing and future global requirements by increasing cost efficiency and ensuring reliable and timely delivery to the plants, and therefore to customers. Digitalizing and harmonizing SCM processes, optimizing value streams, and restructuring the organization are some of the key tasks defined by the initiative, which will run until 2025. Among other things, DEUTZ plans to establish a central Corporate SCM unit with global responsibility for strategic SCM alignment and for ensuring that all production sites across the Group use standard processes. A new SCM Excellence unit was established in 2022. Furthermore, export distribution centers (EDC) will be set up to manage global material flows and requirements in line with the global material planning strategy. They will channel the requirements of the regional plants and act as the sole interface with the supplier. Moreover, the introduction of constraints management alongside inventory management will ensure that any supplier-side shortfalls are covered.

As part of its digitalization strategy to increase commercial performance, DEUTZ launched a new global logistics platform in 2022. Its purpose is to map all global supply chains in a standardized way and link all stakeholders in the supply chain to provide a comprehensive data ecosystem. After the platform went live in China at the end of 2022, the next stage in 2023 is to continue the implementation for the Chinese supplier network, and to launch it in Germany. In the medium term, a new system for detailed planning and management will be introduced to provide more productive and transparent production capacity planning, thus enabling the necessary modernization of assembly planning at the engine factory in Cologne-Porz.

Capital expenditure DEUTZ continued to plan and deliver a range of investment projects in 2022 with the aim of improving its technical performance and safeguarding its long-term competitiveness.

In 2022, DEUTZ began to implement a new assembly setup for its 4 to 8-liter engines at its headquarters in **Cologne**. It is scheduled to be up and running by the second half of 2023. It will offer a higher level of automation and greater flexibility, paving the way for the move from the current two assembly lines to a single line for all newer 4 to 8-liter engine series, including DEUTZ's TCG 7.8 H2 hydrogen engine. The assembly system will also feature new, longer assembly stations that can accommodate engines for varying amounts of time, thus making it easier to efficiently manage differences in takt time. For the first time, the operator guidance system and tightening technology will be integrated on the assembly vehicles alongside the engine and materials to optimize flexibility in the overall system.

[1] Excluding electric boat drives from DEUTZ subsidiary Torqeedo.
[2] Excluding DEUTZ subsidiary Torqeedo.

At the **shaft center** in Cologne-Porz, DEUTZ implemented an automation project in 2022 that used robot chains to supply a number of processing machines, which significantly increased efficiency and productivity in the manufacture of crankshafts and camshafts. Further automation projects are in the pipeline for 2023, and another three processing machines and a new crankshaft cleaning system are also scheduled to come on stream.

At the end of 2022, DEUTZ started using its new **logistics center** on a trial basis, just a stone's throw from its headquarters in Cologne-Porz. In addition to engine storage and dispatch, the 45,000m² building has space for other logistics activities, including the empty containers center for outer packaging, part of stationary assembly, and exhaust aftertreatment (EAT) picking. The multi-function center simplifies DEUTZ's logistics structures considerably, reducing the number of sites from five to two. By consolidating premises in this way, production and logistics can be brought closer together while lowering costs at the same time. The center is scheduled to officially open in the first half of 2023.

A new machine for processing rocker arms came on stream at the DEUTZ site in **Herschbach** in 2022. In addition to halving the takt time, its automated loading and unloading feature also increases output quality. Tool and maintenance costs are also lower as the new machine replaces three old machines in total. DEUTZ is also investing in a new logistics hall in Herschbach with the aim of improving the efficiency of goods inward, storage, picking, and the provision of outgoing material at the plant in line with the latest lean principles. It is set to come on stream in late 2023/early 2024.

An updated version of the PowerTree was industrialized at the DEUTZ site in **Ulm** in 2022. See also the non-financial report, 'Product stewardship', p. 113 onward. Production times and costs were reduced by simplifying the new design and optimizing processes. The resulting savings are helping to offset the current price increases for bought-in parts such as electronic components.

At DEUTZ Spain's components plant in **Zafra**, the first prototypes of the 3.9 liter engine were manufactured for delivery to DEUTZ and John Deere in 2022. The engine is set to enter full production in 2025. Several flexible processing machines were purchased in 2022 with a view to upgrading the plant, and workpiece handling was automated on a crankcase processing line at the turn of 2022/2023.

Expansion of production capacity in China As part of its joint venture with SANY, DEUTZ opened a new assembly plant for high-performance engines close to the SANY truck factory in Changsha. Existing production lines at the sites in Kunshan and Changsha were moved to the new production facility and brought on stream in 2022. Initially, larger 9, 12, and 13-liter diesel engines will be built here for SANY trucks and construction vehicles. In mid-2023, another assembly line is set to go live that will produce DEUTZ engines exclusively for off-highway applications.

At the site in Tianjin, which manufactures drives for construction equipment and material handling systems under a cooperation agreement with diesel engine maker BEINEI, volume production of DEUTZ's 2.9 CN4 series was ramped up in 2022 after the China 4 off-highway emissions legislation came into force. Production increased from around 500 engines in 2021 to 4,732 in 2022, and that number is set to rise again in 2023. Since the end of 2022, the new factory, which will initially operate as a production hub for the local market, has been manufacturing DEUTZ TCD 6.1 engines as well as the 2.9 series.

New Board of Management role of Chief Operating Officer The success of a company depends to a large extent on the satisfaction of its customers, which is directly linked to the quality of its products. The foundations for high product quality and delivery reliability are laid at the purchasing and production stages. See also the non-financial report, 'Product quality', p. 117 onward. In 2022, DEUTZ established the new role of Chief Operations Officer to link purchasing, production, and logistics more closely together. The purpose of creating a role focused on the processes in purchasing, logistics, and production is to leverage synergies more efficiently, further minimize costs, and better optimize quality.

PURCHASING AND PROCUREMENT

The DEUTZ Group maintains business relationships with around 5,900 suppliers in more than 60 countries. With a total purchasing volume of nearly €1.4 billion worldwide, the Company's supply chain makes a significant contribution to its value creation process.

Substantial delays in the supply chain in 2022 were enormously challenging not just for the production units but also for Purchasing as well as the supply chain function and its processes. In an already difficult environment for procurement, the outbreak of the war in Ukraine further exacerbated global bottlenecks in materials and transportation. The war's impact on the global flow of goods has severely affected DEUTZ, even though none of its direct suppliers are located in the crisis-hit regions. The geopolitical fallout from the war also pushed up prices, including those for energy and raw materials, leading to direct and indirect cost increases on the procurement side. See also 'Procurement market', p. 34.

As part of its performance initiatives, DEUTZ established a process to share the burden of rising procurement costs with its suppliers and customers. Continual monitoring of markets and prices provided the starting point for the many negotiations conducted with suppliers in this context in 2022. DEUTZ also passed on higher input prices in full to its customers through two rounds of price rises.

DEUTZ has adopted this more market-oriented pricing policy in order to be better able to compensate for swings in prices for raw materials, energy, etc. and to strengthen its competitive position. The increasingly proactive approach to pricing is primarily aimed at maintaining relatively stable margins, even in an inflationary environment.

Supplier risk management The primary aim of the overarching supplier risk management system is to avoid disruptions to supply by minimizing and managing risks and supply shortages. In order to identify potential risks at an early stage, Purchasing uses a digital information tool to continuously monitor more than 1,000 production component suppliers and suppliers of non-production items. This enables Purchasing to proactively take risk-mitigating measures where required.

When the coronavirus pandemic broke out, DEUTZ strengthened its existing risk management system in order to counteract supply bottlenecks. Measures that have been in place since then to secure supplies as far as possible include the greater use of existing second-source suppliers, the procurement of stocks of finished parts from suppliers in high-risk regions, the creation of increased inventory ranges, and the organization of special shipments.

Global purchasing organization and strategy DEUTZ intends to gradually centralize Group purchasing so that, in the medium term and as far as is reasonably practical, all subsidiaries will be subject to the same principles as apply at DEUTZ AG. In 2021, as a first step, it set up a groupwide organizational structure for purchasing and established the Purchasing Excellence department, which assumed global responsibility for the purchasing function's strategy, governance, processes, methods, and tools. DEUTZ also set up a platform that provides it with a transparent overview of the supplier base across all sites and allows it to structure spending across the Group in a standardized way. The DEUTZ subsidiary Torqeedo and the DEUTZ companies in China and Morocco were integrated into this platform in 2022. The reporting year also saw a groupwide purchasing policy drawn up that, once signed off as planned in 2023, will require all procurement activities to be approved by Group purchasing.

Sustainable procurement DEUTZ systematically manages its suppliers using a 'supplier cockpit', with which it monitors the performance of key suppliers, primarily from the perspective of the quality of the supplied components, lead times, availability, and commercial conditions. With the implementation of the groupwide sustainability strategy, however, the selection of suppliers is also going to be increasingly based on sustainability criteria. For example, DEUTZ uses a web-based assessment platform for global supply chains and a business partner compliance tool in order to be able to query and evaluate various aspects of sustainability. See also the non-financial report, 'Supplier management', p. 110 onward.

The topic of sustainable procurement gained added significance with the adoption of the Supply Chain Due Diligence Act (LkSG) in 2021. This act came into effect in Germany on January 1, 2023 and is intended to prevent, minimize, or eliminate risks relating to human rights and the environment within the supply chain. In relation to this, DEUTZ will publish its first declaration of principles in 2023. As well as a description of how DEUTZ fulfills its due diligence obligations, the declaration will disclose the high-priority human rights risks and environmental risks that have been identified and, building on this, will set forth what DEUTZ expects from its employees and suppliers. See also the non-financial report, 'Supplier Management', p. 110 onward.

The DEUTZ code of conduct for suppliers (Supplier Code) is a key instrument in the Company's efforts to communicate sustainability aspects to its supply chain. The code sets out mandatory groupwide requirements, for example with regard to ensuring compliance with occupational health and safety standards and certain environmental protection standards as well as respecting human rights. In 2022, DEUTZ comprehensively revised the content of its code of conduct for suppliers. Certain expectations that the code sets out were expanded and formulated in greater detail in line with the LkSG and international frameworks, such as the Universal Declaration of Human Rights, the Guiding Principles on Business and Human Rights, and the OECD Guidelines for Multinational Enterprises. Moreover, content that had previously taken the form of recommendations was turned into mandatory requirements that a supplier now has to fulfill in order to work with DEUTZ. In order to ensure and track the effectiveness of the Supplier Code to the greatest possible extent, site audits of both existing and new suppliers are conducted on a sample basis to assess their compliance with the requirements set out in the code. See also the non-financial report, 'Supplier Management', p. 110 onward.

EMPLOYEES

Overview of the DEUTZ Group's workforce[1]

Headcount

	Dec. 31, 2022	Dec. 31, 2021
DEUTZ Group	**4,975**	**4,751**
Thereof		
In Germany	3,434	3,273
Outside Germany	1,541	1,478
Thereof		
Non-salaried employees	2,694	2,576
Salaried employees	2,195	2,083
Trainees	86	92

[1] Number of employees expressed in FTEs (full-time equivalents) including trainees; excluding temporary workers.

DEUTZ employed 4,975[1] people worldwide as at December 31, 2022, which was 224 more than at the end of 2021. This rise was primarily due to the sharp increase in production volume. In response to the noticeable increase in demand, DEUTZ hired new employees and made previously temporary workers part of its regular workforce. Further reasons for the headcount growth were the expansion of the basis of consolidation – for example due to the acquisition of the DEUTZ service partners Ausma Motorenrevisie B.V. and Kirkwell Ltd. (South Coast Diesels) and the inclusion of the subsidiary DEUTZ Engines (India) Private Limited, which had previously not been consolidated on grounds of materiality – and the implementation of regional growth initiatives, for example in connection with the shared service center in Spain and the establishment of the new DEUTZ Power Centers in the USA.

At 69 percent, the bulk of the Group's workforce is based in Germany. Of the 3,434 employees in Germany, 2,591 work at the Company's headquarters in Cologne.

The number of temporary workers decreased year on year from 401 to 237, mainly because people who had previously been temporary workers were taken on as employees. They made up around 5 percent of the workforce in 2022 compared to around 8 percent in 2021.

[1] Number of employees expressed in FTEs (full-time equivalents) including trainees; excluding temporary workers.

MACROECONOMIC AND INDUSTRY-SPECIFIC ENVIRONMENT

ECONOMIC ENVIRONMENT

High inflation leads to lower growth Following a robust global economic recovery in 2021, the 2022 reporting year was characterized by the impact of the war in Ukraine, rising inflation, and renewed outbreaks of coronavirus in China. The latest estimate from the International Monetary Fund (IMF) shows a rise in global value creation of 3.4 percent, a marked a decline compared with the prior-year figure of 6.2 percent. Growth in global trade slowed significantly, from a rate of 10.4 percent in 2021 to 5.4 percent in 2022. This was primarily attributable to rising inflation, which was up from an annual average of 4.7 percent in 2021 to 8.8 percent in the reporting year.[1]

GDP growth[1]

YoY change (%)

	2022	2021
Global	3.4	6.2
Industrialized countries	2.7	5.4
Eurozone	3.5	5.3
Germany	1.9	2.6
USA	2.0	5.9
Emerging markets	3.9	6.7
China	3.0	8.4

[1] IMF: World Economic Outlook Update, January 2023.

Whereas GDP in the industrialized countries increased by a total of 2.7 percent, the emerging markets experienced slightly stronger growth of 3.9 percent. China, an emerging market with great influence on the global economy, recorded below-average growth of 3.0 percent for the first time in many years as a result of its highly restrictive coronavirus containment policies.

PROCUREMENT MARKET

Following the substantial supply shortages in the global procurement market in 2021, the procurement of components and raw materials remained challenging in 2022. This was due to ongoing bottlenecks worldwide in the availability of materials, particularly electronics, plastic, and steel. The outbreak of the war in Ukraine also exacerbated what was already a difficult supply situation. Moreover, there continued to be bottlenecks in global freight and transportation capacity, particularly due to the coronavirus lockdowns in China and the sustained level of very high demand in the global economy. This resulted in further cost increases as well as supply chain delays. Electricity and gas prices also jumped to record highs in the reporting year.

Energy prices Forward contract prices in both the electricity market and the gas market in Europe rose sharply at the start of 2022 compared with their levels in previous years.[2] The outbreak of the war in Ukraine and the resulting reduction in the volume of gas supplied by Russia, the main supplier, caused prices in the German electricity and gas markets to shoot up by 800 percent and 315 percent respectively compared with the end of 2021, reaching all-time highs of around €985 and €314 per MWh.[2] Although electricity and gas prices came back down in the fourth quarter of 2022, they remained significantly above their levels at the end of 2021.

Commodity prices Having already reached a high level in 2021, commodity prices continued to climb in 2022. However, they remained below the levels reached in 2021. Prices for foundry scrap and wrought iron scrap went up by a further 7 percent and 4 percent[3] respectively compared with average prices for 2021, while prices for the non-ferrous metals aluminum and nickel, for example, jumped by around 20 percent and 55 percent respectively[4].

Transportation market In 2022, the transportation market experienced cost increases, particularly on routes between Asia and Europe and between Europe and the USA, as well as capacity bottlenecks and longer transit times. Tight shipping capacity and an insufficient number of containers available to shipping lines led to significantly longer transit times and delays for goods being transported by sea. This situation was made worse by queues at the ports caused by a significant reduction in the capacity available at ports due to the pandemic. The land freight situation was also challenging owing to a shortage of drivers and transportation bottlenecks. Furthermore, costs went up sharply as a result of rising fuel prices, energy prices, and wages.

[1] IMF: World Economic Outlook Update, January 2023.
[2] dataview.rwest-services.com.
[3] www.bdguss.de.
[4] www.lme.com.

INDUSTRY-SPECIFIC ENVIRONMENT

Diesel engine market Based on currently available figures, the individual off-highway markets served by DEUTZ – construction equipment, material handling equipment, and agricultural machinery – presented a mixed picture in terms of how they performed in 2022. This can be explained by a variety of factors across the regions. In Europe, for example, they included the impact of the war in Ukraine, while North America faced high inflation and rising interest rates, and China pursued a strict zero-COVID strategy.

In the construction equipment segment, the year-on-year change in unit sales varied from region to region in 2022. Thanks to comprehensive government initiatives in North America, such as President Biden's infrastructure bill, and the European Commission's infrastructure program, the markets in these regions proved very robust in the face of difficult economic conditions.[1] In contrast, the Chinese market for construction equipment experienced a considerable year-on-year slump. This was the result of market saturation and the restrictive zero-COVID policy, which repeatedly led to local lockdowns and plant closures, and thus to major production outages.[2]

Demand for material handling equipment followed the trend in the construction industry. For example, unit sales of forklift trucks in North America and Europe rose in 2022 as a result of government stimulus packages,[3] while unit sales in China fell year on year for the reasons outlined above.[2] For lifting platforms and telehandlers, a sharp increase in fleet investment by equipment leasing companies led to a substantial rise in unit sales.

Growth in the European agricultural machinery market in 2022 was dampened by the impact of the war in Ukraine but was positive overall. In North America, the persistently high demand for tractors, in particular, contributed to renewed market growth. In China, the structural and technological adjustments appear to have been mostly completed, leading to a larger rise in unit sales.[4]

The Chinese market for heavy-duty trucks contracted sharply overall in the reporting period. The main reason for this downturn was the CN6 emissions standard for heavy-duty trucks introduced in China in mid-2021, which led customers to bring capital investment forward and hold high levels of inventory. Moreover, the transportation and logistics industry was adversely affected by local coronavirus-related lockdowns, which resulted in massive reductions in capacity among the truck manufacturers.[5]

[1] VDMA, Construction Equipment and Building Material Machinery, January 2023.
[2] Chinese Construction Machinery Association, CCMA Sales YTD 11-2022, January 2023.
[3] Power Systems Research, OE Link Update Bulletin Q4 2022, January 2023.
[4] VDMA, Geschäftsklima und Marktentwicklung weltweit, November 2022.
[5] China Automotive Industry Association, January 2023.

BUSINESS PERFORMANCE IN THE DEUTZ GROUP

Following a successful first six months of the year, DEUTZ continued to benefit from robust demand in relevant customer industries in the second half of 2022. The waning coronavirus pandemic and the war in Ukraine did not directly have any significant negative impact during the reporting year. However, DEUTZ was not alone in experiencing the very real geopolitical impact that the war had on energy and raw material prices and on the global flow of goods around the world. See also 'Procurement market', p. 34. Nevertheless, the resulting additional cost pressures were mitigated by passing on the higher costs to our customers through price increases. Cost savings attributable to implementation of the Powering Progress initiatives also had a positive effect on earnings performance. See also 'Purchasing and procurement', p. 32 onward, and 'Production and logistics' p. 29 onward.

NEW ORDERS

DEUTZ Group: New orders

€ million

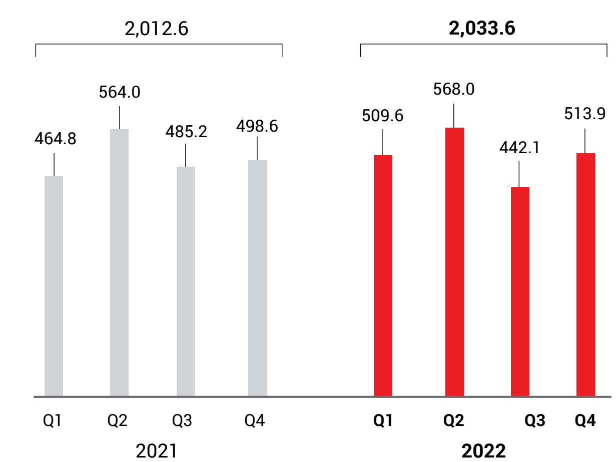
In 2022, new orders received by the DEUTZ Group amounted to €2,033.6 million. This was 1.0 percent higher than the level achieved in the prior-year period, which had been boosted by one-off effects of spending brought forward in an amount of more than €100 million, a situation that came about mainly due to customer orders being brought forward and to longer lead times.

The regional situation was mixed, with new orders rising markedly in the Americas and Asia-Pacific regions but declining slightly in the EMEA[1] region during the reporting period. The application segments also presented a disparate picture. Whereas Material Handling, Agricultural Machinery, and the service business generated significant increases in new orders, there were year-on-year decreases for Construction Equipment, Stationary Equipment, and Miscellaneous. These decreases, which were in some cases significant, were attributable to a downturn in the construction industry driven by a sharp rise in costs, a streamlining of portfolios around older engine series, and, most notably, a fall in demand for electric boat drives.

In the service business, which is a key pillar of DEUTZ's Dual+ growth strategy, new orders rose by 10.0 percent year on year to reach €453.5 million. Major contributors to this were parts sales and the business with DEUTZ Xchange engines in the Americas and EMEA regions.

DEUTZ Group: New orders by quarter

€ million



In the fourth quarter of 2022, the volume of new orders rose year on year by 3.1 percent to €513.9 million due to higher demand in the Construction Equipment, Material Handling, and Agricultural Machinery application segments.

As at December 31, 2022, orders on hand stood at €773.5 million (December 31, 2021: €676.7 million), which indicates continued growth. The level of orders on hand attributable to the service business advanced year on year from €35.7 million to €43.6 million.

UNIT SALES

With a total of 234,682 engines sold, the DEUTZ Group registered an increase in unit sales of 16.6 percent in the reporting period. The number of DEUTZ engines sold[2] climbed by 12.7 percent to 181,268. Unit sales were thus within the most recent forecasts of between 175,000 and 185,000 DEUTZ engines.[3]

DEUTZ Group: Unit sales

units

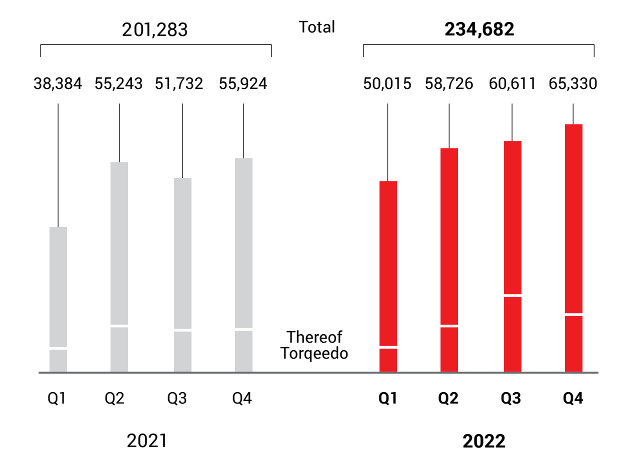
[1] Europe, Middle East, and Africa
[2] Excluding electric boat drives from DEUTZ subsidiary Torqeedo.
[3] See the quarterly statement dated November 9, 2022.

The uptrend in unit sales was generated across all application segments, with Construction Equipment the only one not to achieve strong double-digit growth. The Americas region saw the sharpest increase in absolute terms, with an increase in unit sales of 41.6 percent. This was primarily attributable to much higher unit sales of electric boat drives, but there was also growth in unit sales in the Material Handling and Stationary Equipment application segments. Unit sales rose year on year by 10.7 percent in the Asia-Pacific region and by 8.4 percent in the EMEA region, which is currently DEUTZ's largest sales market.

The DEUTZ subsidiary Torqeedo increased its unit sales by 32.2 percent to 53,414 electric boat drives in 2022. This was due to a sharp uptick in demand that was generated mainly from the OEM[1] business in the Americas and Asia-Pacific regions. Unit sales in the EMEA region, meanwhile, were well below the prior-year level as a result of a fall in demand for drives used in leisure applications.

DEUTZ Group: Unit sales by quarter

units



In the fourth quarter of 2022, unit sales across the Group were up by 16.8 percent compared with the equivalent quarter of the prior year to stand at 65,330 units. All regions contributed to the increase, with Asia-Pacific (up by 42.0 percent) and the Americas (up by 25.2 percent) delivering the strongest growth. Almost all the application segments reported double-digit percentage growth, with only Construction Equipment falling slightly short of the level achieved in the prior year.

In the final quarter of 2022, unit sales of DEUTZ engines[2] stood at 50,393 units, an increase of 13.0 percent compared with the equivalent quarter of 2021. Over the same period, unit sales at Torqeedo rose by 32.0 percent to 14,937 boat drives.

REVENUE

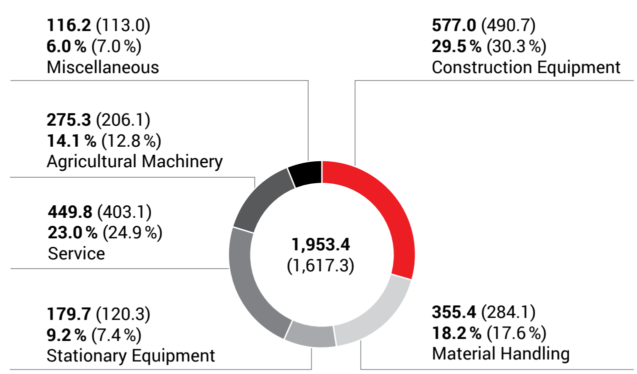
DEUTZ Group: Revenue

€ million

Reflecting the growth in unit sales, consolidated revenue increased by 20.8 percent to €1,953.4 million in 2022, which was higher than the forecast range of €1.75 billion to €1.85 billion.[3] Revenue rose at a faster rate than unit sales mainly due to the effective implementation of price rises and positive product mix and currency effects.

DEUTZ Group: Revenue and proportion of revenue by application segment

€ million (2021 figures)

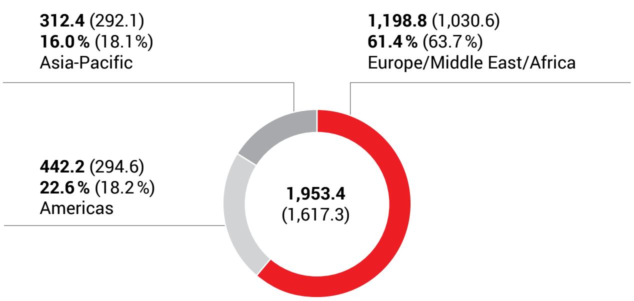


Every application segment contributed to the growth in revenue, with all of them – except for Miscellaneous – reporting double-digit percentage increases. DEUTZ's revenue from the service business rose by 11.6 percent year on year to €449.8 million, primarily thanks to an expansion of parts sales and the exchange engine business (DEUTZ Xchange).

[1] Original equipment manufacturer.
[2] Excluding electric boat drives from DEUTZ subsidiary Torqeedo.
[3] See the quarterly statement dated November 9, 2022.

DEUTZ Group: Revenue and proportion of revenue by region

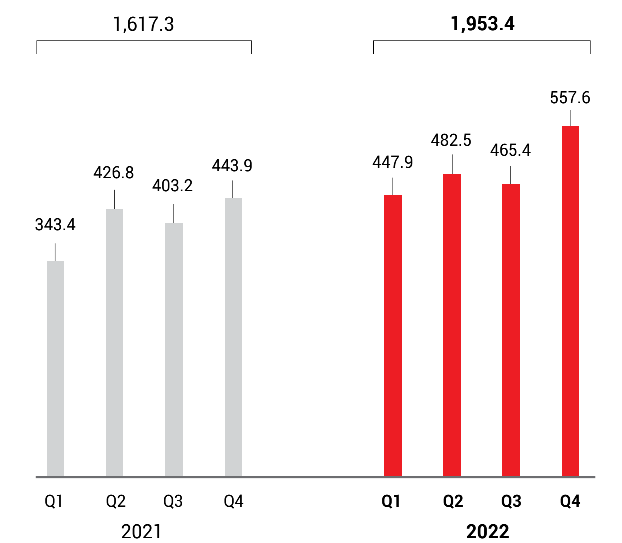
€ million (2021 figures)



All regions also reported growth. In absolute terms, the EMEA region, and particularly Germany and the rest of Europe, saw the highest rises.

DEUTZ Group: Consolidated revenue by quarter

€ million



Consolidated revenue amounted to €557.6 million in the fourth quarter of 2022, which was 25.6 percent more than in the corresponding period of 2021. All regions and all application segments contributed to the increase.

EARNINGS

DEUTZ Group: Overview of results of operations

€ million

	1–12/2022	1–12/2021	Change
Revenue	**1,953.4**	**1,617.3**	**20.8 %**
Cost of sales	– 1,574.8	– 1,331.7	18.3 %
Research and development costs	– 105.8	– 90.9	16.4 %
Selling and administrative expenses	– 189.6	– 164.8	15.0 %
Other operating income	35.3	27.0	30.7 %
Other operating expenses	– 27.4	– 22.4	22.3 %
Impairment of financial assets and reversals thereof	– 5.0	– 0.2	2,400.0 %
Profit/loss on equity-accounted investments	– 3.7	– 0.8	–362.5 %
Other net investment income	0.2	0.6	–66.7 %
EBIT	**82.6**	**34.1**	**142.2 %**
Interest income	1.3	0.2	550.0 %
Interest expense	**– 7.2**	– 5.2	38.5 %
Other financial income/ finance costs	– 0.9	0.0	–
Financial income, net	**– 6.8**	**– 5.0**	**–36.0 %**
Income taxes	4.4	9.1	– 51.6 %
Net income	**80.2**	**38.2**	**109.9 %**
Adjusted EBIT – Green (EBIT before exceptional items)	–39.2	– 22.4	– 75.0 %
Adjusted EBIT – Classic (EBIT before exceptional items)	128.1	58.7	118.2 %
Consolidation/Other[1]	0.5	0.9	– 44.4 %
Adjusted EBIT (EBIT before exceptional items)	**89.4**	**37.2**	**140.3 %**
Exceptional items	– 6.8[2]	– 3.1	119.4 %
EBIT	**82.6**	**34.1**	**142.2 %**

[1] Consolidation/Other predominantly consists of non-operating centralized activities as well as effects on earnings resulting from the elimination of intra-group transactions between the segments.

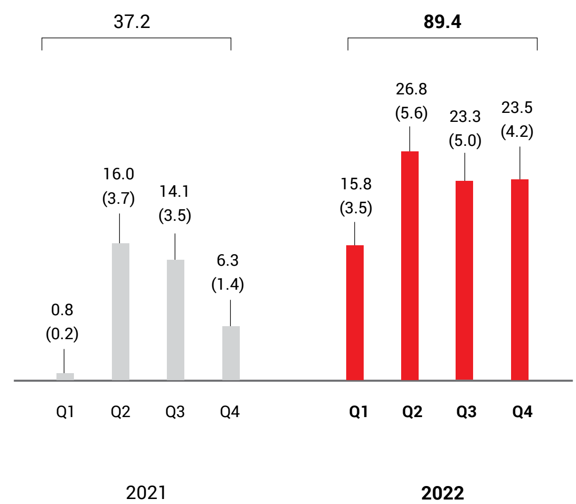
[2] Due to the recognition of provisions following several changes at senior management level.

DEUTZ Group: Adjusted EBIT and EBIT margin (before exceptional items)

€ million (EBIT margin in %)

DEUTZ Group: Adjusted EBIT (EBIT before exceptional items) by quarter

€ million (EBIT margin in %)



Adjusted EBIT DEUTZ generated adjusted EBIT (EBIT before exceptional items) of €89.4 million in 2022. This is more than double the equivalent figure for the prior-year of €37.2 million. The significant improvement of €52.2 million was primarily due to the sharp rise in revenue in connection with economies of scale, and cost savings stemming from the restructuring and cost reduction measures initiated in the previous year. Moreover, the market-oriented pricing policy proved effective in mitigating additional cost pressures that arose from higher transportation costs and prices for materials. Downside factors included higher impairment losses on trade receivables and negative contributions to earnings from the DEUTZ subsidiary Torqeedo and the Chinese joint venture Hunan DEUTZ Power.

The adjusted EBIT margin doubled from 2.3 percent in 2021 to 4.6 percent in the reporting year and was thus within the most recently forecast range of 4.5 percent to 5 percent.[1] The DEUTZ Group's return on capital employed[2] (ROCE before exceptional items) improved from 4.1 percent to 9.0 percent in the same period and therefore matched the guidance originally provided in the 2021 annual report[3] of a percentage figure in the high single digits.

In the final quarter of 2022, adjusted EBIT rose year on year from €6.3 million to €23.5 million due to the significant increase in revenue.

In 2022, there were exceptional items amounting to an expense of €6.8 million. These related mainly to several changes at the most senior management level in the DEUTZ Group. After taking exceptional items into account, EBIT for the year under review stood at €82.6 million (2021: €34.1 million).

Cost of sales The significant growth in the volume of business pushed the cost of sales up by 18.3 percent to €1,574.8 million in 2022. Higher transportation and packing costs were particularly important factors in this year-on-year increase, alongside the volume-related rise in staff costs and in the cost of materials. The gross margin[4] improved from 17.7 percent in 2021 to 19.4 percent in 2022.

Research and development costs In the year under review, research and development costs amounted to €105.8 million. They largely comprised staff costs, the cost of materials, and amortization on completed development projects, from which investment grants received and capitalized development expenditure were deducted. The increase in development activities in the Green segment is the main reason why this figure is €14.9 million higher than in 2021.

[1] See the quarterly statement dated November 9, 2022.
[2] Return on capital employed (ROCE): ratio of EBIT to average capital employed. Capital employed: total assets less cash and cash equivalents, trade payables, and other current and non-current liabilities, based on average values from two balance sheet dates.
[3] The guidance published in the 2021 annual report (original guidance) was put under review at the time the report was published on March 14, 2022 due to the outbreak of war in Ukraine. No new guidance was provided for this indicator when the new full-year guidance was issued in November 2022; see quarterly statement dated November 9, 2022.

[4] Gross margin: ratio of revenue less cost of sales to revenue (excluding amortization relating to capitalized development expenditure).

Other operating income Other operating income totaled €35.3 million in the reporting year. This year-on-year increase of €8.3 million was mainly attributable to a reversal of provisions for onerous contracts in relation to orders on hand and to higher foreign currency gains.

Selling and administrative expenses In 2022, selling and administrative expenses rose by a total of €24.8 million to €189.6 million. This increase was mainly attributable to the recognition of provisions for severance payments triggered by changes at the most senior management level in the DEUTZ Group, to the growth of personnel provisions in line with increased earnings, to higher consultancy costs, and to a larger overall workforce.

Other operating expenses Other operating expenses rose by €5.0 million to €27.4 million in 2022, primarily due to higher foreign currency losses arising on the translation of foreign currency positions.

Impairment of financial assets and reversals thereof The impairment of financial assets relates to impairment losses on trade receivables. It increased year primarily in connection with individual issues.

Share of profit (loss) of equity-accounted investments Owing to the loss attributable to the Chinese joint venture Hunan DEUTZ Power Co., Ltd., the share of profit (loss) of equity-accounted investments deteriorated by €2.9 million to a loss of €3.7 million in 2022.

Financial income, net Net finance costs deteriorated by €1.8 million to €6.8 million in the reporting period, primarily due to an increased drawdown of lines of credit granted by banks and to a rise in the sale of receivables and in lease liabilities.

Income taxes Tax income totaling €4.4 million was recognized in 2022. The current tax expense rose by €9.6 million to €16.1 million in line with earnings. Deferred tax income of €20.5 million was also recognized. This effect was due to temporary differences resulting from the differing recognition of provisions under IFRS and in the tax accounts. It was also related to an increase in deferred tax assets on tax losses carried forward, which was primarily attributable to an upgraded earnings expectation for the upcoming five-year period.

Earnings per share Net income rose by €42.0 million to €80.2 million in 2022. This meant that earnings per share more than doubled from €0.32 in 2021 to €0.66 in the reporting year. Adjusted for exceptional items, net income rose to €86.1 million (2021: €41.3 million) and adjusted earnings per share to €0.71 (2021: €0.34).

Net income for the reporting year was boosted by deferred tax income of €20.5 million. Excluding this deferred tax income, net income amounted to €59.7 million and earnings per share to €0.49.

BUSINESS PERFORMANCE IN THE SEGMENTS

With effect from January 1, 2022, DEUTZ put a new reporting structure in place and introduced the Classic and Green segments. The Classic segment encompasses all activities related to the development, production, distribution, and maintenance of diesel and gas engines as well as the related service business. The Green segment consists of all activities related to new drives. This includes hydrogen engines, the subsidiaries Torqeedo and battery management specialist Futavis, electric and hybrid-electric drives, mobile rapid charging stations, and the related service business.

With the new segmentation of its business activities, DEUTZ intends to report its work on climate-neutral mobility in the off-highway sector more transparently and to enable targeted management of its transformation into the leading provider of green drive solutions for off-highway applications.

Given that DEUTZ is currently only at the start of this transformation, the volume of business for the Green segment still largely reflects the performance of the DEUTZ subsidiaries Torqeedo and Futavis and, in terms of earnings, also the growth in research and development activities in the field of electric and hydrogen-powered drive systems.

The segment figures for the prior-year period shown below have been adjusted to reflect the new reporting structure.

DEUTZ Group: Segments

€ million

	2022	2021
New orders		
Classic	1,981.1	1,947.7
Green	52.5	64.9
Total	**2,033.6**	**2,012.6**
Unit sales (units)		
Classic	181,249	160,880
Green	53,433	40,403
Total	**234,682**	**201,283**
Revenue		
Classic	1,889.4	1,563.4
Green	64.0	53.9
Total	**1,953.4**	**1,617.3**
Adjusted EBIT (EBIT before exceptional items)		
Classic	128.1	58.7
Green	–39.2	–22.4
Consolidation/Other	0.5	0.9
Total	**89.4**	**37.2**

DEUTZ CLASSIC

DEUTZ Classic

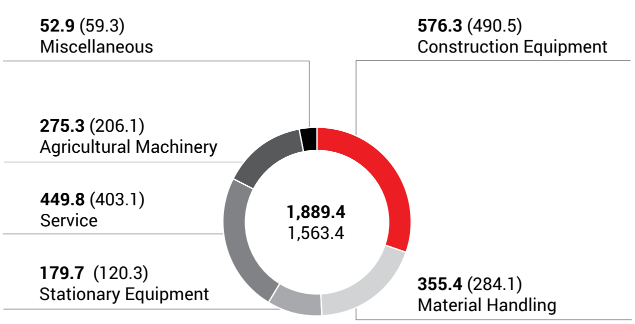
€ million

	2022	2021	Change
New orders	1,981.1	1,947.7	1.7%
Unit sales (units)	181,249	160,880	12.7%
Revenue	1,889.4	1,563.4	20.9%
EMEA	1,167.9	997.3	17.1%
Americas	419.5	280.3	49.7%
Asia-Pacific	302.0	285.8	5.7%
EBIT before exceptional items	128.1	58.7	118.2%
EBIT margin before exceptional items (%)	6.8	3.8	+3.0 PP

New orders received in the Classic segment rose by 1.7 percent to €1,981.1 million in 2022. The growth was driven by the Material Handling and Agricultural Machinery application segments and the service business. Orders on hand totaled €763.7 million as at December 31, 2022, which was 16.8 percent higher than the figure reported at the end of 2021. The segment's unit sales increased by 12.7 percent year on year to 181,249 engines, with the Americas and EMEA regions contributing increases of 29.2 percent and 13.6 percent respectively and all the main application segments registering growth. Segment revenue climbed by 20.9 percent to €1,889.4 million in 2022, a much higher amount than the original forecast range of €1.6 billion to €1.75 billion.[1] Revenue rose at a faster rate than unit sales, primarily due to the effective implementation of price rises and to positive product mix and currency effects.

DEUTZ Classic: Revenue by application segment

€ million (2021 figures)



In the fourth quarter of 2022, new orders rose by 4.1 percent compared with the corresponding quarter of 2021 to reach €505.4 million, growth that was attributable to the Material Handling, Construction Equipment, and Agricultural Machinery application segments. The segment's unit sales rose by 12.9 percent to 50,379 engines. All of the regions and application segments recorded double-digit percentage increases. Only the unit sales of Construction Equipment fell slightly short of the level achieved in the prior year. The Classic segment's revenue increased by 26.6 percent to €545.0 million in the final quarter of 2022.

Adjusted EBIT for the segment (EBIT before exceptional items) improved by a significant €69.4 million year on year to €128.1 million. As a result, the Classic segment's adjusted EBIT margin rose from 3.8 percent to 6.8 percent, which was its highest return on revenue in around ten years, whereas an improvement to between 4.5 percent and 6.5 percent had originally[1] been forecast. In addition to the effects of cost savings, this increase was attributable to growth in the volume of business, associated economies of scale, positive currency effects, and optimization of the existing portfolio.

In the fourth quarter of 2022, adjusted EBIT for the segment rose year on year by €22.3 million to €35.6 million as a result of the higher volume of business. This increase was partly offset by negative currency effects arising on the translation of foreign currency positions and by higher consultancy costs.

[1] The guidance published in the 2021 annual report (original guidance) was put under review at the time the report was published on March 14, 2022 due to the outbreak of war in Ukraine. No new guidance was provided for this indicator when the new full-year guidance was issued in November 2022; see quarterly statement dated November 9, 2022.

DEUTZ GREEN

DEUTZ Green

€ million

	2022	2021	Change
New orders	52.5	64.9	– 19.1 %
Unit sales (units)	53,433	40,403	32.3 %
Revenue	64.0	53.9	18.7 %
EMEA	30.9	33.3	– 7.2 %
Americas	22.7	14.3	58.7 %
Asia-Pacific	10.4	6.3	65.1 %
EBIT before exceptional items	– 39.2	– 22.4	– 75.0 %
EBIT margin before exceptional items (%)	– 61.3	– 41.6	– 19.7 pp

New orders received in the Green segment fell by 19.1 percent to €52.5 million in the reporting year. In addition to a decline in demand for electric boat drives for use in leisure applications, this decrease was primarily due to the high volume of new orders received in the prior year, which had been boosted by an order placed by an OEM customer. As at December 31, 2022, orders on hand were down by 57.2 percent year on year and amounted to €9.8 million. The segment's unit sales were up by 32.3 percent to 53,433 units as a result of higher demand from OEM customers in the Americas and Asia-Pacific regions. Segment revenue advanced year on year by 18.7 percent to €64.0 million, which was below the original forecast range[1] of €75 billion to €100 billion. The fact that the increase in unit sales was not fully reflected in a corresponding increase in revenue is due to the sharp expansion in the OEM business, which has a lower average price per drive than other areas of business with boat drives.

In the fourth quarter of 2022, new orders in the Green segment declined year on year by 35.1 percent to €8.5 million. Whereas the segment's unit sales increased by 32.1 percent to 14,951 units over the same period, segment revenue was down by 6.0 percent to €12.6 million.

Adjusted EBIT for the segment declined by €16.8 million compared with the prior-year period and amounted to a loss of €39.2 million. This deterioration was attributable to increased development expenditure on new drive technologies, primarily in connection with the TCG 7.8 H2 hydrogen engine and activities relating to electric drive systems, as well as the loss generated by the subsidiary Torqeedo. Moreover, the figure for the prior-year period had been boosted by a compensation payment. Reflecting the decline in the segment's adjusted EBIT, the adjusted EBIT margin also deteriorated year on year and was significantly weaker than the original forecast range[1] of between minus 30 percent and minus 20 percent.

Adjusted EBIT for the segment deteriorated by €5.4 million to a loss of €13.0 million in the fourth quarter of 2022. This was mainly due to the increase in development expenditure for new drive technologies and the larger loss reported by Torqeedo GmbH.

FINANCIAL POSITION

BASIC PRINCIPLES AND OBJECTIVES OF FINANCIAL MANAGEMENT

The purpose of financial management is to ensure the solvency of the DEUTZ Group at all times by obtaining the necessary funds, to hedge and contain interest-rate risk, currency risk, and commodities risk throughout the Group, and to optimize the cost of capital. Responsibility for groupwide financial management, including managing funds within the Group, lies with DEUTZ AG as the parent company of the Group.

FUNDING

Funding restructured – sufficient liquidity ensured DEUTZ restructured its existing funding at the start of May 2022. The Company increased the volume of the long-term syndicated loan from €160 million to €250 million and extended the term by three years to May 2, 2027. The three existing bilateral credit lines, which had a total volume of €75 million, were terminated.

The syndicated loan is unsecured and has a floating interest rate. In addition to better overall terms and conditions and two one-year extension options, the new lending arrangements include an ESG component derived from the Company's sustainability targets. See also the non-financial report, 'Sustainability strategy and objectives', p. 98 onward.

The unused volume of the syndicated loan stood at around €140 million at the end of 2022. DEUTZ thus has sufficient financial means to be able to fund its operating business, invest in its transformation, and generate growth through acquisitions.

Over the course of 2022, DEUTZ also arranged three further bilateral credit lines, each in an amount of €25 million, which run until the end of the first quarter of 2024 and are also unsecured and floating-rate facilities. None of the three lines were drawn down as at the balance sheet date.

DEUTZ also continues to have access to short-term credit lines and makes use of loans with subsidized interest rates.

As part of its funding agreements, DEUTZ has undertaken to comply with certain financial and non-financial covenants. If, however, there is a dramatic deterioration in the general economic situation – for example because of the fallout from the coronavirus pandemic or the war in Ukraine – there is a risk of the covenants being breached in the short term. Should such a risk materialize, DEUTZ would approach its funding partners in advance in order to negotiate the necessary waiver and to enable further amounts to be drawn down under the syndicated loan. Compliance with the financial covenants would not place any restrictions on DEUTZ's ability to pursue growth projects. See also 'Financial risk management', note 26, p. 188 onward.

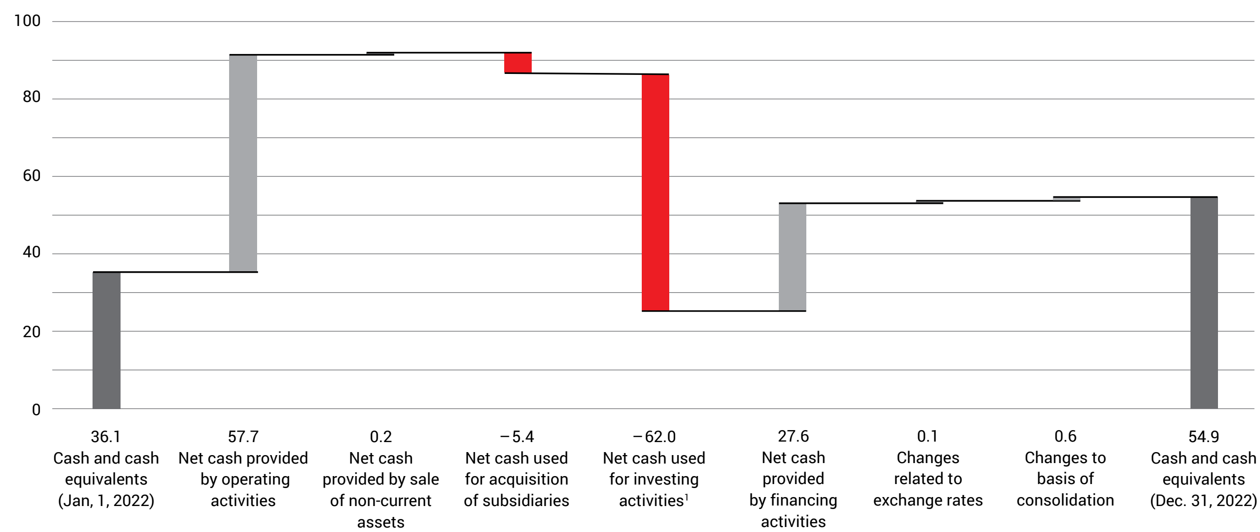
Receivables management optimized by means of factoring and systematic improvement of payment terms The sale of receivables, known as factoring, is an important way of optimizing receivables management. It enables DEUTZ to not only ensure sufficient liquidity but also improve its working capital, which tends to be affected by large amounts of capital being tied up in the preliminary financing of engine production and in the payment terms that it has granted.

The volume of sales of receivables totaled €171.6 million as at the balance sheet date, which was above the level a year earlier (December 31, 2021: €133.8 million) due to the improved business performance.

Other financial obligations Off-balance sheet obligations and investment obligations came to €205.4 million as at December 31, 2022. Of this total, commitments to purchase inventories amounted to €116.8 million, commitments to purchase property, plant and equipment and intangible assets totaled €49.8 million, and a sum of €38.8 million was attributable to IT services. Utilization of the IT services will amount to €10.7 million in 2023. Further financial obligations totaling €28.1 million are due in the period 2024 to 2027. The off-balance sheet obligations do not have a material impact on the Group's financial position.

DEUTZ Group: Change in cash and cash equivalents

€ million



[1] Capital expenditure on intangible assets, investments, property, plant and equipment.

CASH FLOW

Overview of the DEUTZ Group's financial position

€ million

	2022	2021	Change
Cash flow from operating activities	57.7	93.3	– 38.2 %
Cash flow from investing activities	– 67.2	–67.2	– 0.0 %
Cash flow from financing activities	27.6	–56.1	–
Change in cash and cash equivalents	**18.1**	**–30.0**	**–**
Free cash flow[1] from continuing operations	**– 16.6**	**21.6**	**–**
Cash and cash equivalents at Dec. 31	54.9	36.1	52.1 %
Current and non-current interest-bearing financial debt at Dec. 31	219.1	115.8	89.2 %
thereof lease liabilities	94.6	61.3	54.3 %
Net financial position[2] at Dec. 31	– 164.2	–79.7	– 106.0 %

[1] Cash flow from operating activities and from investing activities less interest expense.
[2] Cash and cash equivalents less current and non-current interest-bearing financial debt.

Cash flow from operating activities amounted to €57.7 million in 2022, which was down by €35.6 million on the figure reported in 2021 despite a much higher level of operating profit. The decrease was largely due to the increase in working capital. Trade receivables and inventories rose sharply due to the expansion of business activities. The increase in inventories of finished goods was also partly attributable to delays in the supply chain. Moreover, the procurement of certain items in the market was extremely challenging, which resulted in a build-up of inventories of materials and components in order to safeguard production. The growth of inventories was only offset to a small extent by the increase in trade payables.

At €67.2 million, net cash used for investing activities was at the same level as the figure reported in the prior-year period in spite of the decrease in payments for property, plant and equipment and for intangible assets. This was due to DEUTZ's acquisition of its former service partners AUSMA Motorenrevisie B.V., which is headquartered in Roden, Netherlands, and Kirkwell Ltd. (South Coast Diesel), based in Kildare, Ireland. It was also affected by the payment of the final installment of the purchase consideration for the acquisition of the investment in Blue World Technologies Holding Aps, based in Aalborg, Denmark.

The main factors affecting cash flow from financing activities, which came to €27.6 million in 2022, were the drawdown of short-term lines of credit and the payment of a dividend totaling €18.2 million. Cash flow from financing activities included payments of interest and principal in connection with leases amounting to €2.0 million and €16.6 million respectively (2021: €1.4 million and €15.6 million respectively).

In line with the decline in cash flow from operating activities, free cash flow deteriorated year on year due to the increase in working capital described above. It declined by €38.2 million to minus €16.6 million. This figure was at the upper end of the most recently issued guidance of a negative low- to mid-double-digit million euro amount.[1]

The cash flow situation gradually improved as the year progressed. Free cash flow in the fourth quarter of 2022 reached a figure of €53.2 million. This significant improvement compared with the corresponding quarter of 2021 (up by €46.8 million) and with the third quarter of 2022 (up by €98.3 million) was also mainly the result of changes in working capital. However, the better level of operating profit also played a part in this substantial improvement.

These changes in cash flow during the reporting period resulted in an overall increase in cash and cash equivalents to €54.9 million. Net financial debt increased by €84.3 million to minus €164.2 million. As at December 31, 2022, the net financial position included lease liabilities totaling €94.6 million (December 31, 2021: €61.3 million).

CAPITAL EXPENDITURE

Capital expenditure (after deducting investment grants)

€ million

	2022	2021	Change
Property, plant and equipment	106.1	61.8	44.3
of which right-of-use assets for leases under IFRS 16	54.3	17.7	36.6
Property, plant and equipment (excluding right-of-use assets for leases under IFRS 16)	51.8	44.1	7.7
Intangible assets	10.8	10.7	0.1
	116.9	**72.5**	**44.4**

Total capital expenditure in 2022 on property, plant and equipment and on intangible assets after deducting investment grants, and including capitalization of research and development expenditure, was significantly above both the prior-year level and the original guidance[2] of between €90 million and €100 million. This was mainly the result of the sharp rise in additions to leases in connection with the new logistics center.

Additions to property, plant and equipment were mainly in connection with replacement investment in machinery and tools. DEUTZ also invested in assembly and testing equipment, IT equipment and software, and logistics.

The much higher level of capital expenditure on right-of-use assets was primarily attributable to DEUTZ entering into new long-term leases for its logistics operations and, in particular, the commissioning of a new logistics center in Cologne-Porz.
See also 'Production and logistics', p. 29 onward.

Capital expenditure on intangible assets was mainly in connection with the development of the new 5.2 engine series.

The Classic segment accounted for the bulk of the total capital expenditure after deducting investment grants, at €104.1 million (2021: €68.7 million). €12.8 million was invested in the Green segment (2021: €3.8 million).

[1] See the quarterly statement dated November 9, 2022.
[2] The guidance published in the 2021 annual report (original guidance) was put under review at the time the report was published on March 14, 2022 due to the outbreak of war in Ukraine. No new guidance was provided for this indicator when the new full-year guidance was issued in November 2022; see quarterly statement dated November 9, 2022.

NET ASSETS

DEUTZ Group: overview of net assets

€ million

	Dec. 31, 2022	Dec. 31, 2021	Change
Non-current assets	730.3	696.8	4.8 %
thereof right-of-use assets in connection with leases	87.3	57.4	52.1 %
Current assets	745.1	593.3	25.6 %
Total assets	**1,475.4**	**1,290.1**	**14.4 %**
Equity	668.8	588.4	13.7 %
Non-current liabilities	195.8	214.7	– 8.8 %
thereof lease liabilities	76.8	45.4	69.2 %
Current liabilities	610.8	487.0	25.4 %
thereof lease liabilities	17.8	15.9	11.9 %
Total equity and liabilities	**1,475.4**	**1,290.1**	**14.4 %**
Working capital[1] (€ million)	346.3	253.2	36.8 %
Working capital ratio[2] (Dec. 31, %)	17.7	15.7	+2.0 PP
Working capital ratio[3] (average, %)	16.7	15.5	+1.2 PP
Equity ratio[4] (%)	**45.3**	**45.6**	**– 0.3 PP**

[1] Inventories plus trade receivables less trade payables.
[2] Working capital (inventories plus trade receivables less trade payables) as at the balance sheet date divided by revenue for the previous twelve months.
[3] Average working capital at the four quarterly reporting dates divided by revenue for the previous twelve months.
[4] Equity/total equity and liabilities.

Assets Non-current assets stood at €730.3 million as at December 31, 2022, a year-on-year rise of €33.5 million. This was mostly attributable to an increase of €29.9 million in right-of-use assets in connection with leases. These additions were primarily the result of the Company entering into new long-term leases for logistics premises with the aim of making logistics processes simpler and more efficient. Other financial assets went up too, mainly due to the payment of the second installment of the purchase consideration of €3.7 million for the investment in Blue World Technologies, Aalborg, Denmark. The carrying amount of equity-accounted investments declined, primarily because of the losses attributable to the Chinese joint venture Hunan DEUTZ Power Co., Ltd. Intangible assets decreased. This was because capitalized development expenditure was significantly lower than amortization in the period.

The year-on-year rise in deferred tax assets was due to temporary differences resulting from the differing recognition of provisions under IFRS and in the tax accounts and to increased opportunities to utilize tax loss carryforwards.

The increase in current assets was due, in particular, to higher inventories and trade receivables.

Working Capital The sharp rise in the volume of business and the associated increase in capacity utilization meant that inventories, in particular, were significantly higher as at December 31, 2022. In addition to higher procurement prices, the rise in inventories was also due to increased stockpiling, which became necessary to safeguard production in the face of an expanded volume of business coupled with disrupted supply chains. Trade receivables and trade payables also rose sharply due to the growth in the volume of business. Working capital increased by €93.1 million overall in the reporting period. Despite the steep increase in revenue, the average working capital ratio improved year on year from 15.5 percent to 16.7 percent, which put it at the upper end of the original forecast range[1] of 15 percent to 17.0 percent.

Equity As at December 31, 2022, equity had risen to €668.8 million because of the net income generated in the reporting year. Nevertheless, the equity ratio of 45.3 percent as at December 31, 2022 was slightly lower than the prior-year figure of 45.6 percent. However, it was still well above the long-term target of more than 40 percent. Increases in right-of-use assets, inventories, and trade receivables were the main factors in this decrease.

Liabilities The fall in non-current liabilities was primarily due to the significant reduction in provisions for pensions and other post-retirement benefits. This can be explained by scheduled pension payments and by actuarial gains (recognized in other comprehensive income) resulting from much higher pension discount rates. Lease liabilities were higher, however, because of the increase in right-of-use assets. The rise in current liabilities was mainly attributable to the increase in trade payables on the back of the growth in the volume of business. Furthermore, liabilities to banks went up due to the increased drawdown of short-term lines of credit.

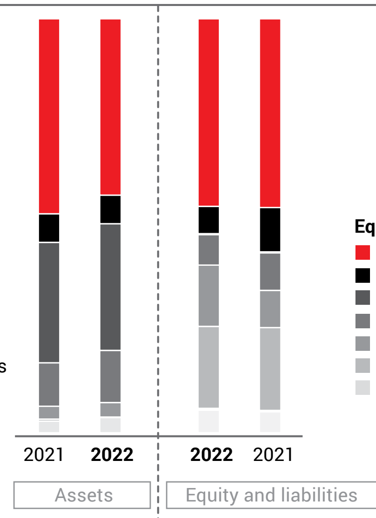
[1] The guidance published in the 2021 annual report (original guidance) was put under review at the time the report was published on March 14, 2022 due to the outbreak of war in Ukraine. No new guidance was provided for this indicator when the new full-year guidance was issued in November 2022; see quarterly statement dated November 9, 2022.

DEUTZ Group: Balance sheet structure

% (2021 figures)

Assets

42.6	(47.1)	Non-current assets
6.9	(6.9)	Deferred tax assets
30.6	(29.1)	Inventories
12.6	(10.5)	Trade receivables
3.5	(3.1)	Other receivables and assets
0.1	(0.5)	Receivables in respect of tax refunds
3.7	(2.8)	Cash and cash equivalents



Equity and liabilities

45.3	(45.6)	Equity
6.6	(10.7)	Pension provisions
0.1	(0.1)	Deferred tax liabilities
7.5	(9.2)	Other provisions
14.8	(9.0)	Financial liabilities
19.8	(20.0)	Trade payables
0.3	(0.2)	Liabilities arising from income taxes
5.6	(5.2)	Other liabilities

DEUTZ AG

The following remarks refer to the annual financial statements of DEUTZ AG. The annual financial statements of DEUTZ AG are prepared in accordance with the requirements of the German Commercial Code (HGB).

BASIC PRINCIPLES AND BUSINESS PERFORMANCE OF DEUTZ AG

DEUTZ AG is the parent company of the DEUTZ Group. In Germany and abroad, DEUTZ AG has a direct or indirect stake in 44 companies (2021: 42 companies). DEUTZ AG is also by far the largest production company of the DEUTZ Group and provides the head-office functions for the Group. See 'Shareholdings of DEUTZ AG', p. 209 onward, for further information on DEUTZ AG's equity investments.

Because the business performance and financial situation of DEUTZ AG are essentially the same as for the DEUTZ Group, we make reference here to the 'Business performance in the DEUTZ Group' section of this combined management report. See also 'Business performance in the DEUTZ Group', p. 36 onward.

Because of the significance of DEUTZ AG within the Group, and its heavy interdependencies with other Group companies, the Group is managed at the level of DEUTZ AG. In addition to the key performance indicators used for management at Group level, the net income of DEUTZ AG – the relevant variable for the payment of dividends – is also an element of the management system of the Company. The internal control system for the DEUTZ Group is described in this combined management report. See also 'Internal control system', p. 24 onward.

The DEUTZ Group's net income in accordance with IFRS is reconciled to DEUTZ AG's net income in accordance with the HGB:

RESULTS OF OPERATIONS

DEUTZ AG: Reconciliation

€ million	
DEUTZ Group net income (IFRS)	**80.2**
Consolidation of equity investments	–12.8
DEUTZ AG income (IFRS)	**67.4**
Material differences due to different financial reporting standards	
Recognition of development expenditure	10.3
Measurement of provisions for pensions and other post-retirement benefits	5.8
Measurement of investments	–6.4
Recognition of deferred taxes	–2.8
Measurement of other provisions	–2.2
Other differences relating to the financial reporting standards	1.7
DEUTZ AG net income (HGB)	**73.8**

Overview of DEUTZ AG's results of operations

€ million

	2022	2021	Change
Revenue	**1,667.8**	**1,405.2**	**262.6**
Cost of sales	–1,407.1	–1,219.3	–187.8
Research and development costs	–85.2	–76.4	–8.8
Selling and administrative expenses	–96.4	–84.6	–11.8
Other operating income	48.7	32.4	16.3
Other operating expenses	–25.4	–20.4	–5.0
Net investment income	–3.8	–0.6	–3.2
Write-downs of investments	–24.5	0.0	–24.5
Operating profit (EBIT)	**74.1**	**36.3**	**37.8**
Interest expenses, net	–1.6	–4.0	2.4
Income taxes	1.8	8.2	–6.4
Other taxes	–0.5	–0.5	0.0
Net income	**73.8**	**40.0**	**33.8**

Revenue DEUTZ AG's revenue increased by 18.7 percent to €1,667.8 million in 2022. All application segments contributed to this significant growth, with the most notable increases registered for Stationary Equipment (up by 40.4 percent to €153.9 million), Agricultural Machinery (up by 30.1 percent to €267.4 million), Construction Equipment (up by 18.0 percent to €559.4 million), and Material Handling (up by 15.3 percent to €285.0 million). The high-margin service business also generated very strong growth, with revenue rising by 6.0 percent to €328.3 million. In the regional breakdown, the most pronounced increases in revenue were recorded in the Americas (up by 38.5 percent to €303.0 million) and in the EMEA region (up by 16.6 percent to €1,085.8 million). Revenue in the Asia-Pacific region went up by 9.2 percent to €279.0 million.

Earnings performance DEUTZ AG reported an operating profit (EBIT) of €74.1 million in 2022. This marked year-on-year improvement was mainly attributable to the significant growth in the volume of business, the associated economies of scale, and cost savings stemming from the restructuring and cost reduction measures initiated in the previous year. The improvement was partly offset by write-downs of €24.5 million on investments in Torqeedo GmbH, Futavis GmbH, and D. D. Power Holdings (Pty) Ltd.

Cost of sales DEUTZ AG's cost of sales came to €1,407.1 million in 2022. The year-on-year increase was mainly attributable to the volume-related rise in the cost of materials and staff costs. The gross margin[1] improved significantly from 13.2 percent to 15.6 percent thanks to economies of scale.

Research and development costs In the year under review, research and development costs amounted to €85.2 million. They largely comprised staff costs, the cost of materials, and amortization on completed development projects, from which investment grants received and capitalized development expenditure were deducted. The increase in development activities for new drive systems in the Green segment is the main reason why this figure is €8.8 million higher than in 2021.

Selling and administrative expenses The growth of selling and administrative expenses was primarily attributable to expenses for severance payments in connection with the changes made at senior management level in the reporting year. Higher consultancy costs were also a contributing factor.

Other operating income Other operating income increased year on year by €16.3 million. This rise was mainly attributable to a partial reversal of provisions for onerous contracts in relation to orders on hand, amounting to €10.3 million, and to a sum of €6.9 million in relation to the valuation of pension provisions.

Other operating expenses Other operating expenses went up by €5.0 million year on year to €25.4 million. This increase was primarily due to higher expenses arising from currency translation (2022: €17.4 million; 2021: €2.9 million). It was partly offset by the change in provisions recognized for onerous contracts in relation to orders on hand. These provisions were reduced significantly in 2022, whereas a sum of €7.8 million had been added in 2021. The income from the reversal was recognized under other operating income.

Income taxes Tax income totaling €1.8 million was recognized in 2022. The current tax expense rose by €6.8 million to €9.2 million owing to the higher level of net income before income taxes. Deferred tax income of €11.0 million was also recognized.

Net income As a result of the business performance described above, net income for 2022 amounted to €73.8 million and therefore exceeded the forecast made in the 2021 annual report for an amount in the mid-double-digit millions of euros.

FINANCIAL POSITION

Financial management in the DEUTZ Group is one of the core functions of the Group, and DEUTZ AG holds responsibility for this function. The basic principles and objectives of financial management at DEUTZ AG are therefore largely the same as those of the Group, as is the funding of DEUTZ AG. In this regard, please refer to the relevant sections of this combined management report.

See also 'Financial position of the DEUTZ Group', p. 43 onward.

Overview of DEUTZ AG's financial position

€ million

	2022	2021	Change
Cash flow from operating activities	101.9	64.0	37.9
Cash flow from investing activities	–154.1	–45.2	–108.9
Cash flow from financing activities	57.4	–32.1	89.5
Change in cash and cash equivalents	5.2	–13.3	18.5
Free cash flow[1]	–52.3	17.3	–69.6
Cash and cash equivalents at Dec. 31	20.6	15.4	5.2

[1] Cash flow from operating activities and from investing activities less net interest expense.

[1] Ratio of revenue less cost of sales to revenue (excluding amortization relating to development expenditure).

Liquidity The sharp rise in operating profit on the back of the growth in business resulted in a significant year-on-year improvement of €37.9 million in cash flow from operating activities. Net cash used for investing activities was €108.9 million higher than in 2021. This significant increase was primarily due to expenditure on investments. In 2022, DEUTZ AG granted a long-term loan of US$ 100.0 million to its wholly owned subsidiary Deutz Corporation and acquired all of the shares in Kirkwell Ltd. (South Coast Diesels), Kildare, Ireland, for €5.4 million. Cash flow from investing activities also included the payment of €3.7 million for the second and final tranche of the investment in Blue World Technologies, which is based in Aalborg, Denmark. The total investment in this company comes to €7.5 million. The main factor affecting cash flow from financing activities was the drawdown of short-term lines of credit. Despite the significantly better level of operating profit, free cash flow fell by €69.6 million as a result of the higher level of capital expenditure.

Capital expenditure After deducting investment grants, DEUTZ AG's capital expenditure in 2022 amounted to a total of €155.5 million (2021: €60.0 million). This was broken down into €36.1 million (2021: €28.1 million) on property, plant and equipment, €10.2 million (2021: €8.8 million) on intangible assets, and €109.2 million (2021: €4.9 million) on investments. Additions to property, plant and equipment were mainly in connection with replacement investment in machinery and tools. DEUTZ AG also invested in assembly and testing equipment, IT equipment, and software.

Capital expenditure on intangible assets was mainly in connection with the development of the new 5.2 engine series. Additions to investments primarily related to the grant of a long-term loan of US$ 100.0 million to Deutz Corporation, the acquisition of all the shares in Kirkwell Ltd., which is headquartered in Kildare, Ireland, and the investment of €3.7 million in Blue World Technologies, which is based in Aalborg, Denmark.

NET ASSETS

Overview of DEUTZ AG's net assets

€ million

	Dec. 31, 2022	Dec. 31, 2021	Change
Non-current assets	706.7	629.0	77.7
Current assets	499.9	442.7	57.2
Prepaid expenses	6.1	5.2	0.9
Deferred tax assets	93.5	82.5	11.0
Excess of plan assets over post-employment benefit liability	6.0	0.0	6.0
Total assets	**1,312.2**	**1,159.4**	**152.8**
Equity	668.5	612.8	55.7
Provisions	284.7	280.9	3.8
Liabilities	357.8	264.5	93.3
Deferred income	1.2	1.2	0.0
Total equity and liabilities	**1,312.2**	**1,159.4**	**152.8**
Working capital[1] (€ million)	62.4	51.1	11.3
Working capital ratio (Dec. 31, %)	3.7	3.6	0.1
Equity ratio[2] (%)	50.9	52.9	–1.9

[1] Inventories plus trade receivables less trade payables.
[2] Equity/total equity and liabilities.

Non-current assets Compared with the end of 2021, non-current assets were up by €77.7 million. This was primarily due to expenditure on investments.

Current assets The sharp rise in current assets primarily resulted from the growth in inventories, trade receivables, and receivables due from affiliated companies as a result of the significantly increased volume of business.

Working capital Working capital stood at €62.4 million as at December 31, 2022, which was €11.3 million above the level reported a year earlier. This increase was mainly attributable to the growth of inventories. The rises in trade receivables and trade payables broadly offset one another. Despite the increase in working capital, the working capital ratio as at the balance sheet date was virtually unchanged year on year at 3.7 percent as a result of the higher revenue (December 31, 2021: 3.6 percent).

Equity ratio Owing to the net income generated, equity advanced by €55.7 million to €668.5 million as at December 31, 2022. At 50.9 percent, the equity ratio was down slightly at the end of the year due to the rise in total assets.

Liabilities The main reason for the increase in liabilities of €93.3 million was the rise in liabilities to banks resulting from the higher drawdown of short-term lines of credit. Trade payables also went up owing to the growth in the volume of business.

Provisions The increase in provisions was primarily attributable to the growth of provisions for severance payments in connection with multiple changes at senior management level and the provision for the collectively agreed inflation compensation payment. The increase was partly offset by a reduction in provisions for order-related losses and utilization of the provision for restructuring as planned.

EMPLOYEES

DEUTZ AG employed 3,238 people as at December 31, 2022, which was 158 more than at the end of 2021. By contrast, the number of temporary workers fell by 152. See also 'Employees', p. 33.

DEUTZ AG: Employees

Headcount

	Dec. 31, 2022	Dec. 31, 2021
Cologne	2,591	2,473
Ulm	492	448
Other	155	159
Total	**3,238**	**3,080**

RISK AND OPPORTUNITY REPORT

DEUTZ AG is integrated into the risk management system of the DEUTZ Group. As a head-office function, risk management for the Group is performed by DEUTZ AG. Information about the structuring and mechanics of the risk management system and of risk management with regard to financial instruments can be found in the risk report of the DEUTZ Group on p. 57 onward.

Because DEUTZ AG is closely integrated with the other Group companies, its risk and opportunities situation is essentially the same as that of the Group. Risks arising from subsidiaries may have an effect on DEUTZ AG because of the carrying amount of an equity investment, reduced dividend payments, and the internal business relations. The risks and opportunities for the DEUTZ Group are described in this combined management report. See also 'Risk report of the DEUTZ Group', p. 57 onward.

Information about DEUTZ AG's internal accounting-related control system and about risk management with regard to the use of financial instruments at DEUTZ AG can be found in the combined management report. See also 'Internal control system', p. 24 onward.

OUTLOOK

DEUTZ AG performs the head-office functions of the DEUTZ Group and is the biggest production company within the Group by some margin. Because of DEUTZ AG's wide-ranging relationships with other Group companies and because of its size within the Group, the expectations presented in the Group outlook for 2023 are essentially the same as those for DEUTZ AG. It is therefore likely that the revenue of DEUTZ AG will develop largely in line with the statements made for the DEUTZ Group. In 2023, net income is expected to be in the mid-double-digit millions of euros and therefore similar to the level of net income achieved in 2022. See also 'Outlook for 2023', DEUTZ Group, p. 65 onward.

For information about events after the reporting period, please see Note 30 on page 201 onward of the notes to the consolidated financial statements.

OVERALL ASSESSMENT FOR 2022

Target/actual comparison for 2022

DEUTZ Group	Actual 2021	Original guidance 2022[1]	Adjustment of the guidance in November 2022[2]	**Actual 2022**
Unit sales of DEUTZ engines[3]	160,882	165,000 to 180,000	175,000 to 185,000	**181,268**
Revenue	€1.62 billion €1.56 billion €53.9 million	€1.7 billion to €1.85 billion thereof DEUTZ Classic: €1.6 to €1.75 billion thereof DEUTZ Green: €75 to €100 million	€1.75 billion to €1.85 billion – –	**€1.95 billion** €1.89 billion €64.0 million
EBIT margin before exceptional items	2.3 % 3.8 % –41.6 %	3.5 % to 5.5 % thereof DEUTZ Classic: 4.5 % to 6.5 % thereof DEUTZ Green: – 30 % to – 20 %	4.5 % to 5.0 % – –	**4.6 %** 6.8 % –61.3 %
ROCE (before exceptional items)	4.1 %	High-single digit percentage figure	–	**9.0 %**
R&D expenditure (after deducting grants[4])	€82.3 million	€75 million to €85 million	–	**€90.8 million**
Capital expenditure[5] (after deducting grants[4])	€65.7 million	€90 million to €100 million	–	**€111.6 million**
Free cash flow[6]	€21.6 million	Low to mid-double-digit million euro amount	Negative low- to mid-double-digit million euro amount	**– €16.6 million**
Average working capital ratio[7]	15.5 %	15 % to 17 %	–	**16.7 %**
Equity ratio[8]	45.6 %	Well above 40 percent	–	**45.3 %**

DEUTZ AG	Actual 2021	Original guidance 2022[1]	Adjustment of the guidance in November 2022[2]	**Actual 2022**
Net income	€40.0 million	Mid-double-digit million euro amount	–	**€73.8 million**

[1] Published in the 2021 annual report; put under review on March 14, 2022, see press release dated March 14, 2022.
[2] See the quarterly statement dated November 9, 2022.
[3] Excluding electric boat drives from DEUTZ subsidiary Torqeedo.
[4] After deducting grants from development partners and subsidies.
[5] Capital expenditure on property, plant and equipment (including right-of-use assets in connection with leases) and intangible assets, excluding capitalization of research and development expenditure.
[6] Cash flow from operating activities and from investing activities less interest expense.
[7] Average working capital at the four quarterly reporting dates divided by revenue for the previous twelve months.
[8] Equity divided by total equity and liabilities.

The outbreak of war in Ukraine created a great deal of uncertainty with regard to its geopolitical impact on the global economy and on the flow of goods around the world. Although DEUTZ did little business in Russia, Belarus, and Ukraine even before the outbreak of war, and DEUTZ had no direct suppliers based in the regions affected by the war, it was impossible to predict the indirect impact on DEUTZ's business. For this reason, when DEUTZ published its annual report for 2021 in mid-March 2022, it announced that it was putting under review the guidance for 2022 that it had presented in the annual report, which was based on information available at the end of February 2022.

DEUTZ issued new full-year guidance in November 2022 when it published its quarterly statement for the first to third quarter of the year. Whereas unit sales of DEUTZ drives, at 181,268 units, were within the range indicated in this guidance, its actual revenue of €1,953.4 million was well above the forecast range. In addition to positive product mix and currency effects, this was also due to factors such as the effective implementation of price rises. At 4.6 per cent, the adjusted EBIT margin was within the forecast range. Free cash flow amounted to minus €16.6 million and so was at the upper end of expectations. Despite the positive earnings guidance, DEUTZ had expected free cash flow to be a negative amount in the low- to mid-double-digit millions of euros. This was mainly because it needed to build up inventories in order to safeguard production and because of the potential for delays in the supply chain.

Forecasts for both revenue and adjusted EBIT margin at segment level, ROCE before exceptional items, R&D expenditure and capital expenditure, in each case after grants, the average working capital ratio, and the equity ratio were not provided in November. Looking at the guidance originally published in the 2021 annual report for these key figures provides something of a mixed picture. Whereas revenue in the Classic segment was above the anticipated range in line with the growth in revenue at Group level, revenue in the Green segment was well below expectations. It was a similar situation for the adjusted EBIT margins of the two segments. At 9.0 percent, the return on capital employed (ROCE) before exceptional items was within the anticipated high single-digit range. The equity ratio of 45.3 percent was at the expected level of well above 40 percent. The average working capital ratio of 16.7 percent was at the upper end of the expected range. By contrast, R&D expenditure and capital investment (after deducting grants) were both higher than the interval forecast, at €90.8 million and €111.6 million respectively. In the case of R&D expenditure, this was because DEUTZ stepped up activities aimed at expanding the Green portfolio, in particular. The much higher level of capital expenditure was mainly the result of the sharp rise in additions to leases in connection with the new logistics center.

Given the geopolitical impact of the war in Ukraine on the global economy and the ongoing challenges in the supply chain, the DEUTZ Board of Management is satisfied with the business performance in 2022, which in terms of unit sales and revenue was actually better than had been forecast before the outbreak of war.

NON-FINANCIAL REPORT PURSUANT TO SECTIONS 289b AND 315b HGB

DEUTZ AG publishes a separate combined non-financial report for the DEUTZ Group and DEUTZ AG. We refer here to our remarks on pages 92 onward of the annual report and to our website www.deutz.com/nfb2022/en.

CORPORATE GOVERNANCE DECLARATION PURSUANT TO SECTIONS 289f AND 315d HGB[1]

The corporate governance declaration pursuant to section 289f HGB is an integral element of the combined management report. We refer here to our remarks on pages 223 onward of the annual report and to our website www.deutz.com/ezu2022/en.

DISCLOSURES PURSUANT TO SECTIONS 289a AND 315a HGB

Composition of the issued capital There were no changes to the issued capital (share capital) of DEUTZ AG in 2022. As at December 31, 2022, the issued capital amounted to €308,978,241.98 and was divided into 120,861,783 no-par-value bearer shares.

Restrictions affecting voting rights or the transfer of shares We are not aware of any restrictions affecting voting rights or the transfer of shares.

Direct or indirect shareholdings representing more than 10 percent of voting rights At the end of 2022, there were no direct or indirect shareholdings in DEUTZ AG representing more than 10 percent of the voting rights.

Legal provisions and Statute provisions regarding the appointment and removal of members of the Board of Management and regarding changes to the Statutes According to articles 7 (1) and 7 (2) of the Statutes of DEUTZ AG:

“(1) The Board of Management shall comprise at least two members.
(2) The Supervisory Board shall determine the number of members of the Board of Management and the allocation of responsibilities. It may draw up and issue rules of procedure.”

[1] Not audited.

As far as the appointment and removal of members of the Board of Management are concerned, sections 84 and 85 of the German Stock Corporation Act (AktG) and section 31 of the German Codetermination Act (MitbestG) also apply.

According to article 14 of the Statutes of DEUTZ AG: “The Supervisory Board may change the wording but not the spirit of the Statutes.” Sections 179 and 133 AktG also apply in the case of changes to the Statutes.

Authority of the Board of Management, in particular with regard to share issue or buyback The Board of Management is authorized, subject to the consent of the Supervisory Board, to increase the issued capital of the Company on or before April 25, 2023 on one or more occasions in installments through the issue of up to 36,258,534 new no-par-value bearer shares for cash by up to a total amount of €92,693,470.30 (authorized capital I). Pre-emption rights must be granted to existing shareholders. Pursuant to section 203 (1) sentence 1 and section 186 (5) AktG, the new shares may be transferred to one or more banks or to a company operating under section 53 (1) sentence 1 or section 53b (1) sentence 1 or section 53b (7) of the German Banking Act (KWG) subject to an undertaking by the bank(s) or company to offer the shares to existing shareholders (indirect pre-emption right). However, the Board of Management is authorized, subject to the consent of the Supervisory Board, to disapply the pre-emption rights of shareholders for fractional amounts arising on the calculation of pre-emption rights. The Board of Management is further authorized, with the consent of the Supervisory Board, to specify the further content of the share rights and the terms of the share issue for implementing any capital increases under authorized capital I. The Board of Management is also authorized, subject to the consent of the Supervisory Board, to increase the issued capital of the Company on or before April 25, 2023 on one or more occasions in installments through the issue of up to 24,172,356 new no-par-value bearer shares for cash and/or non-cash contribution by up to a total amount of €61,795,646.86 (authorized capital II). Pre-emption rights must be granted to existing shareholders. Pursuant to section 203 (1) sentence 1 and section 186 (5) AktG, the new shares may be transferred to one or more banks or to a company operating under section 53 (1) sentence 1 or section 53b (1) sentence 1 or section 53b (7) KWG subject to an undertaking by the bank(s) or company to offer the shares to existing shareholders (indirect pre-emption right). However, the Board of Management is authorized, subject to the consent of the Supervisory Board, to disapply the pre-emption rights of the existing shareholders

a) for fractional amounts;
b) for capital increases against non-cash contributions, in particular
   (i) when issuing new shares for mergers or acquisitions of entities, parts of entities, or equity investments in entities, including increases in existing shareholdings or other assets eligible as capital contributions in connection with such acquisition plans, including receivables from the Company,

   (ii) when acquiring other assets or claims to the acquisition of assets, and

   (iii) when carrying out a so-called scrip dividend, where shareholders are offered the option of exchanging their rights to a dividend (wholly or in part) for new shares;

c) for cash contributions, if the issue price of the shares is not significantly below the market price of the existing publicly listed shares in the Company on the date the final issue price is fixed;

d) in order to grant holders or creditors of bonds with option or conversion rights to shares of the Company or with option or conversion obligations (where such bonds are issued or are to be issued in the future by the Company or by one of its direct or indirect majority shareholdings) a pre-emption right to the same amount of new shares in the Company that they would be entitled to as shareholders following the exercise of their option or conversion rights or after fulfilling option or conversion obligations.

The total shares issued subject to a disapplication of pre-emption rights against cash and/or non-cash contributions must not exceed 20 percent of the issued capital either at the time this authorization becomes effective or at the time this authorization is utilized, if the amount of issued capital is lower. The aforementioned 20 percent limit includes shares that are sold or issued during the term of this authorization on the basis of all other authorizations under disapplication of pre-emption rights ('disapplication limit'), with the exception of a disapplication of pre-emption rights for fractional amounts. An issue of shares in this sense also includes the issue or creation of option or conversion rights or obligations in respect of the Company's shares from bonds issued by the Company or by its direct or indirect majority shareholdings, if the bonds are issued on the basis of an appropriate authorization during the term of this authorization, disapplying pre-emption rights. If another authorization for a disapplication of shareholders' pre-emption rights that was exercised during the term of this authorization is renewed by the Annual General Meeting, however, the disapplication limit will not apply to the extent that the renewed authorization permits the issue of shares with disapplication of pre-emption rights.

The total of the shares issued for cash with the disapplication of pre-emption rights pursuant to c) must not exceed 10 percent of the issued capital at the time the issue becomes effective or – if lower – 10 percent of the issued capital existing at the time this authorization is exercised. The aforementioned 10 percent limit includes shares that are sold or issued during the term of this authorization on the basis of other authorizations in direct application or application with the necessary modifications of section 186 (3) sentence 4 AktG with the disapplication of pre-emption rights ('disapplication limit'). This restriction also includes shares that have been or will be issued in order to service bonds with conversion rights, option rights, or conversion or option obligations in so far as the bonds were issued by the Company or a direct or indirect majority shareholding during the term of this authorization with the disapplication of pre-emption rights in application of section 186 (3) sentence 4 AktG with any necessary modifications. If another authorization for a disapplication of shareholders' pre-emption rights that was exercised during the term of this authorization is renewed by the Annual General Meeting, the disapplication limit will cease to apply to the extent that the renewed authorization permits the issue of shares with the disapplication of pre-emption rights in direct application of section 186 (3) sentence 4 AktG or in application of section 186 (3) sentence 4 AktG with any necessary modifications. The Board of Management is further authorized, with the consent of the Supervisory Board, to specify the further content of the share rights and the terms of the share issue for implementing any capital increases under authorized capital II.

FURTHER DISCLOSURES

No bearers of shares have any special rights conferring authority to control the Company. Numerous employees have direct shareholdings in DEUTZ AG. There are no restrictions affecting the direct exercise of rights of control in connection with these shares.

A consortium of banks has provided DEUTZ AG with a syndicated cash credit line of €250 million. Under the terms of the loan agreements, the lenders can demand that the outstanding loan be repaid within a specified period in the event of a change of control, i.e. one or more people acting jointly acquire a direct or indirect shareholding of at least 50 percent of all shares and/or voting rights in DEUTZ AG. Further bilateral credit agreements covering a sum of €75 million stipulate that, in the event of a change of control, a mutually acceptable arrangement must be reached regarding the continuation of the credit agreement, if necessary under different terms. If DEUTZ AG needs to repay a considerable proportion of the loans prematurely in the event of a change of control, it needs to raise the necessary funds some other way in the short term.

The cooperation agreement concluded between DEUTZ AG and Liebherr gives Liebherr the right to terminate the agreement if there is a change of control at DEUTZ AG. A change of control for these purposes shall be deemed to have occurred if a competitor of Liebherr directly or indirectly acquires a shareholding representing at least 30 percent of the voting rights in DEUTZ AG or is able to exert direct or indirect influence by means of contracts. Similarly, under the agreement underlying the joint venture with SANY, a change of control at one of the joint venture partners gives the other joint venture partner the right to terminate the agreement. A change of control for these purposes shall be deemed to have occurred if a third party acquires more than 50 percent of the shares or voting rights in DEUTZ AG, otherwise obtains control over DEUTZ AG in accordance with German law, or is otherwise able to exert significant influence over the decisions of its shareholders or Board of Management. In the event of a change of control, the partners must first try to find a mutually acceptable solution. If they cannot, the partner entitled to terminate the agreement may purchase the other partner's shares at an agreed price ('call option'), sell its shares at an agreed price to the partner that gave rise to the termination right ('put option'), or demand that the joint venture be liquidated.

And under the cooperation agreement with Deere & Company, either party has the right to terminate the agreement in the event of a change of control or if a competitor of the other partner acquires an equity investment of more than 25 percent. A change of control for these purposes shall be deemed to have occurred if a third party acquires more than 50 percent of the shares in the other company or is able to exert a controlling influence within the meaning of section 17 AktG.

The service contracts of Board of Management members concluded in view of the new provisions in the German Act Implementing the Second Shareholder Rights' Directive (ARUG II) and in the German Corporate Governance Code (DCGK) do not, in accordance with the suggestion in article G.14 DCGK, provide for any termination benefits if the service contract is ended prematurely as the result of a change of control.

The previous long-term incentive plans (LTI), under which the highest level of senior management in the DEUTZ Group (executives and managing directors of major subsidiaries) have been granted virtual options that they can exercise after a vesting period and upon achievement of certain performance targets See 'Notes to the consolidated financial statements', p. 202, for more information contain the following provision in the event of an entity – either alone or acting jointly with an affiliated company – acquiring a minimum of 50 percent of the shares in DEUTZ AG: Provided one of the performance targets has been achieved, the LTI participants may exercise their options within a short time frame after the acquisition, even if the vesting period has not yet expired. Since 2021, a new LTI has been in use whose structure reflects that of the LTI used for the Board of Management and no longer contains such a provision. This LTI applies to new and existing members of the highest level of senior management. DEUTZ AG has no indemnification agreements with employees that would come into force in the event of a takeover bid.

EXPLANATORY STATEMENT BY THE BOARD OF MANAGEMENT IN CONNECTION WITH SECTIONS 289a AND 315a HGB

The disclosures contained in the combined management report and management report pursuant to sections 289a and 315a HGB relate to arrangements that may be significant in the success of any public takeover bid for DEUTZ AG. It is the opinion of the Board of Management that these arrangements are normal for publicly traded companies comparable with DEUTZ AG.

RISK REPORT

RISK MANAGEMENT SYSTEM

To ensure their long-term survival, companies must act quickly – and react even faster – in a world in which economic conditions and the individual markets are constantly in a state of rapid change. In the face of increasingly complex corporate structures and growing internationalization, systematic risk management therefore forms an important basis for long-term business success.

DEUTZ operates in a variety of industries and regions worldwide and manages its business through various organizational units, namely the operating segments of the Group's parent company, the subsidiaries, the sales offices, and the authorized agents. This organizational structure presents the Company with both opportunities and business-specific risks.

The DEUTZ Group's objective is to generate profits on a sustained basis and to increase these profits significantly over the medium and long term in order to develop the Company and secure its future competitiveness. It is therefore critically important to identify and assess business risks at an early stage and to take corrective action where required. DEUTZ has an appropriate risk management system to ensure it can meet this requirement.

The risk management system heightens employees' sense of responsibility and raises their awareness of potential or existing risks. It is intended to help everyone involved to identify, analyze, and communicate risks in good time and to initiate effective corrective action.

The basic principles, monitoring standards, personnel responsibilities, functions, and procedures in the financial risk management system have been defined by the Board of Management of DEUTZ AG and summarized in a manual that is continually updated. A systematic reporting structure provides the basis for the work of the Risk Management Committee and ensures that all major financial risks are documented and communicated, and that appropriate corrective action is taken and documented at an early stage.

The DEUTZ Group conducts risk inventories four times a year. These risk inventories are carried out in all functions and areas of the Company and in the main affiliated companies to identify whether new risks or changes to existing risks have arisen compared with the Company's short-term and medium-term planning. The identified risks are categorized by importance, based on estimated probability of occurrence and potential impact. At the same time, a review is carried out to establish whether and how action that has been agreed and implemented has successfully minimized known risks or whether there is a need for further action. Tail risks are documented at least once a year as well. These are risks to the Company's survival as a going concern that have a very low probability of occurring. The Risk Management Committee analyzes the risks and the progress of the action that is being taken to minimize them and reports to the Board of Management on the results of the risk inventory. The Board of Management is presented with a risk aggregation at the same time. A risk-bearing capacity statement focused on the Company's equity and liquidity is also shown to the Board of Management on an ad hoc basis, but at least every quarter.

To enable the Company to respond promptly at all times to any possible risks that may arise, the DEUTZ Group's risk officers and their staff are under an obligation to submit immediate reports to the risk coordinator detailing any new material risks or if there is an increase in the threat from risks that are already known. The risk coordinator would then promptly notify the Board of Management accordingly.

The risk management system documents both risks and opportunities, and maintains a strict separation between the two.

The independent auditor conducts an annual audit of the DEUTZ Group's system for the early identification of risks pursuant to section 91 (2) AktG to assess whether the system is functioning efficiently. Corporate Audit is set to do the same at regular intervals going forward.

RISK MANAGEMENT WITH REGARD TO FINANCIAL INSTRUMENTS

Basic principles Owing to its global business operations, the DEUTZ Group is exposed to various financial risks that can arise from adverse movements and trends in the international sales, procurement, interest-rate, and foreign-exchange markets. The Group's overarching risk management strategy used is designed to mitigate potentially negative effects on the financial position and financial performance. The management and early identification of financial risks is based on annual financial planning, together with updates and regular analyses of variances during the year. Financial management in the Group is the responsibility of DEUTZ AG as the parent company.

The Treasury department identifies, measures, and hedges financial risk in close collaboration with the Group's operating segments. The Board of Management specifies principles for the Group's overarching risk management strategy as well as guidelines for certain aspects, such as how to manage currency risk, interest-rate risk, and credit risk and how to hedge them using derivative and non-derivative financial instruments. The Finance Committee, which meets every quarter, or on an ad hoc basis as required, provides a forum at which operational issues relating to risk management and other financially relevant decisions are discussed. The Finance Committee consists of the Chief Financial Officer plus the Head of Finance & Controlling and a further representative of the Treasury department.

The objective of risk management is to mitigate fluctuations in earnings and cash flows caused by volatility in interest rates, exchange rates, and prices for raw materials. Derivative financial instruments are used only for hedging purposes, i.e. only in connection with corresponding underlying transactions arising from the Group's ordinary business activities or financial transactions that have a countervailing risk profile to that of the hedging transaction. The nature and scope of the hedged items are specified in a binding financing directive.

DEUTZ works exclusively with leading banks in order to minimize **counterparty risk**. The Treasury department manages the lines of credit in accordance with the Group's financing principles. Subsidiaries are funded primarily by DEUTZ Group loans. DEUTZ manages the financial risk as follows:

:

Risk from bad debts DEUTZ protects itself against the risk of bad debts by continually monitoring its situation through electronic and other means and by regularly analyzing receivables and their breakdown. The Company takes out credit insurance to cover a large proportion of its receivables where payment for goods has not been received in advance or is not covered by a letter of credit. It also conducts creditworthiness checks on new customers and monitors existing credit limits on an ongoing basis.

Currency risk arising from operating activities Currency risk, primarily in regard to US dollars, which arises as a result of transactions with third parties denominated in foreign currency, is monitored by means of a central currency management system and mitigated by the use of derivative financial instruments. The DEUTZ Group's net currency exposure is normally hedged by forwards equivalent to 50 to 80 percent of open items. DEUTZ is also taking specific action to increase the volume of purchasing in US dollars; this enables the Company to counteract exchange-rate risks from sales invoiced in US dollars by way of natural hedging.

Interest-rate risk arising from funding arrangements The DEUTZ Group is exposed to risk from interest-rate changes, above all in relation to floating-rate loans and other loans that it has taken up.

Liquidity risk The funding agreements concluded provide the Company with adequate liquidity for its further development. During the term of an agreement, DEUTZ AG must ensure that the DEUTZ Group complies with certain financial covenants (ratio of financial debt to equity and to EBITDA). These agreed financial covenants allow sufficient financial leeway in line with the medium-term balance sheet planning and profit planning. If, however, there is a dramatic deterioration in the general economic situation – for example because of pandemics or unexpectedly severe escalations in geopolitical crises (e.g. Taiwan, Ukraine) – there is a risk of the covenants being breached in the short term. Should such a risk materialize, DEUTZ would approach its funding partners at an early stage in order to negotiate the necessary waiver and to enable further amounts to be drawn down under the syndicated loan. In the event of a liquidity crunch, additional lines of credit would be negotiated or factoring would be extended. See also 'Financial risk management', note 26, p. 188 onward.

RISK ASSESSMENT

The assessment of risks in the DEUTZ Group is based on the estimated probability of occurrence in conjunction with the potential impact of the risk on the business objectives. A 'best case', 'mid case', and 'worst case' are considered for the assessed risks. In the following risk report for the DEUTZ Group, the risks are categorized as either 'low', 'moderate', or 'high'. Risks that have been classified as 'low' would be expected to have a low impact of up to €10 million on financial position and financial performance. Risks classified as 'moderate', however, would have a significant impact, of between €10 million and €50 million, and risks classified as 'high' would have a major impact, of over €50 million, on financial position and financial performance. Risks to the Company's survival as a going concern are described as such.

DEUTZ Group: Risk assessment

Probability of occurrence (%)	minor (€0.5 – €10 million)	moderate (>€10 million)	significant (>€25 million)	critical (>€50 million)	very critical (>€100 million)
80–99	low	moderate	moderate	high	high
60–79	low	moderate	moderate	high	high
40–59	low	moderate	moderate	moderate	high
20–39	low	low	moderate	moderate	moderate
1–19	low	low	low	moderate	moderate

Impact

RISK

As with the internal risk reporting, the following presentation of the current risk situation is focused on the risk factors that are relevant to the DEUTZ Group's financial position and financial performance. These risk factors consist of the risks that were categorized as 'low' or higher before taking into account any measures to counter that risk. In contrast to the internal risk management, the risks in the following description are aggregated by risk category.

Unless otherwise stated, the risks refer to the relevant expected value for 2023, weighted by probability, that remains after existing and effective measures and checks have been carried out. The values are calculated on a net basis, whereby the risks are addressed that remain after existing and effective measures and checks have been carried out.

If not explicitly stated, the assessment of the risk is unchanged from the prior year.

MACROECONOMIC RISKS

The further course of the coronavirus pandemic and its consequences for the economy as a whole continue to represent an external risk for DEUTZ. Further waves of infection, the lockdown measures that would result from this, and mutations of the virus could have a negative impact both on unit sales and on procurement and production. The effects of the coronavirus pandemic on financial position and financial performance are taken into account in market risk and operational risk.

Another external risk is the war in Ukraine. The current sanctions and any further sanctions imposed in the future, along with their direct impact on the global economy and the flow of goods around the world, may adversely affect earnings. The level of risk currently posed by the war in Ukraine with regard to attainment of the targets is categorized as 'low' for 2023. However, there is a great deal of uncertainty about the effects of the war – particularly if it were to escalate further – and it is therefore currently impossible to predict exactly what these effects will be.

MARKET RISK

Geopolitical events, trade disputes, the emergence of new competitors, and pandemics can all influence the macroeconomic situation. There is also the risk of being unable to pass on to customers any price increases on the purchasing side. Given that DEUTZ operates in international sales markets, the aforementioned developments and events could have a negative impact on the financial position and financial performance of the Group. As well as having a direct effect on unit sales and revenue, this may also impact negatively on the value of assets on the balance sheet. DEUTZ operates in very cyclical markets in the Construction Equipment and Material Handling application segments, which are the strongest drivers of revenue, and in the principal sales regions of Germany, western Europe, China and North America. The objective is to mitigate this cyclicality from a regional and application segment perspective in order to further reduce its negative impact on business performance.

In the medium and long term, DEUTZ seeks to mitigate regional and application-related sales risks by aligning development activities with the product strategy and by entering into long-term supply agreements. It therefore pursues a strategy of continually signing up new customers across all regions and progressively expanding business with them. DEUTZ is very well diversified and well positioned for the future in terms of the geographical and sectoral distribution of its customers. Furthermore, it supplies the market-leading manufacturers in the various application segments. Active management of orders, inventories, and stock levels is used to respond to volatility in the markets.

Despite the countermeasures taken, it is impossible to completely control external risks. In view of the measures in place, DEUTZ categorizes the level of market risk with regard to the attainment of its targets as 'moderate' in 2023 (2022: low).

STRATEGIC RISK

Based on the objective of broadening the customer and product base, the DEUTZ Group's strategy mainly focuses on expanding and developing its portfolio of alternative drives as part of a technology-neutral approach, continually growing the service business and, at the same time, unlocking potential for growth in the classic engine business. See also 'Strategy and objectives', p. 22 onward.

In pursuit of its overarching objective of pioneering carbon-neutral drive systems for off-highway applications, DEUTZ focuses not only on electrification in the advancement of its portfolio but also, in particular, on the development of internal combustion engines that can run on a zero-carbon basis by using sustainable energy sources such as hydrogen and e-fuels. See also 'Research and development', p. 26 onward.

The product strategy presents numerous opportunities but is, of course, also associated with risks. For example, new product developments may not be as well received by customers as predicted or may not be able to compete with rival products. There is also the risk that markets and prices may change in unexpected ways. Strategic decisions in respect of product collaborations may also impact negatively on the value of assets on the balance sheet.

DEUTZ attempts to mitigate the aforementioned risks in various ways, such as precisely analyzing the trends in relevant markets, for which it also draws on external market research. It also enters into close alliances with major customers, long-term supply agreements, and strategic development partnerships. Where appropriate, DEUTZ is continuing to expand its inhouse capabilities by making targeted acquisitions and strategic investments. In the field of alternative drive solutions, for example, DEUTZ joined the HyCET research project consortium in 2022. HyCET aims to demonstrate the sustainability potential of trucks with hydrogen combustion engines in transportation logistics. See also 'Research and development', p. 26 onward.

There is also the risk that strategic projects do not progress as anticipated or are delayed. They are therefore closely monitored so that DEUTZ can respond to changes immediately.

In view of the measures in place, the level of strategic risk with regard to the attainment of the financial targets continues to be categorized as 'low' for 2023.

OPERATIONAL RISK

Procurement risk Supply shortages at suppliers may lead to delays in DEUTZ's own deliveries or even production downtime if there are no alternative sources of supply. This would adversely affect earnings.

In terms of securing the supply chain, DEUTZ sees risks not only in the ongoing coronavirus pandemic and the potential fallout from the war in Ukraine but also in bottlenecks on the part of suppliers, for example because of the global shortage of supply in the semiconductor sector. In addition, it sees risks in the general economic and political situation and the associated paradigm shift within the automotive industry. Any resulting supplier insolvencies, factory closures, or discontinuation of products could also have a negative impact on the supply chain. Moreover, the DEUTZ Group's earnings could be further dented if logistics and material costs are pushed up by longer replenishment lead times for bought-in parts, price increases at suppliers due to rising energy costs, and bottlenecks in freight and warehouse capacity. See also 'Procurement market', p. 34.

DEUTZ seeks to mitigate the aforementioned risks by carrying out intensive supplier management, by continually negotiating with its suppliers, and by monitoring the market on an ongoing basis. See also 'Purchasing and procurement', p. 32 onward, and 'Production and logistics p. 29 onward.

There are essentially three cornerstones to the DEUTZ Group's procurement strategy for strategic and production-critical components: firstly, long-term supplier relationships and supply agreements; secondly, the increased use of second-source suppliers that are independent of each other; and, thirdly, where required, inhouse production and/or allocation of production to subcontractors. These measures minimize the procurement risks and secure the required capacity to the greatest extent possible. In the event that suppliers charge higher prices, DEUTZ has established a process to spread the burden of rising costs.

In view of the measures in place, the level of procurement risk with regard to the attainment of the financial targets continues to be categorized as 'moderate' for 2023.

Production risk There is a risk that fluctuations in capacity utilization in production have a negative impact on profitability. These could result not just from the business model's degree of dependency on the general economic situation or production delays due to material shortages but also from production downtime, for example because of the coronavirus pandemic, strikes, availability of staff, disruption to internal material flows, or machinery outages.

In 2020, DEUTZ drew up a comprehensive safety plan to prevent production from being disrupted by the coronavirus pandemic. As well as suitable safeguards in the workplace, this continues to include the option of working from home for employees in administrative functions, greater use of virtual meetings, and rapid COVID-19 testing on site.

In order to avoid mistakes in planning and capital expenditure, the necessary production capacity is regularly reviewed and planned using different timescales: over a number of years as part of the medium-term planning process, which is revised each year, and for the following financial year as part of the budget planning process, which is then updated quarterly for the current year. Furthermore, production program meetings and capacity planning meetings are held monthly to ensure that capacity is adjusted in line with orders on hand. Where required, temporary employment contracts are increasingly being used in order to ensure greater flexibility. Projects to stabilize the internal flow of materials and potential Saturday shifts will also help to realize the planned production program.

In view of the measures in place to avoid or minimize these risks, the level of production risk with regard to the financial targets continues to be categorized as 'low'.

Quality risk The DEUTZ Group is exposed to liability and warranty risks. Potential warranty claims and claims for compensation could have a negative impact on financial position and financial performance. In addition, a change in supplier or a relocation of a supplier's operations presents a risk in terms of supplier quality.

All DEUTZ plants and all other relevant areas of the Group have local quality departments in order to ensure quality. These departments systematically analyze sources of errors and defects, optimize production processes, and take action to minimize the risk in production start-ups, thereby reducing warranty risks. A central quality management organization ensures that standardized processes and methods are in place and carries out regular audits. In addition, DEUTZ has defined uniform standards for the selection of suppliers and, in close cooperation with the suppliers, continuously improves the quality of supplied parts.

Regular certification audits and additional quality initiatives also enable DEUTZ to handle the significant technical complexity of engines and to satisfy the steadily increasing quality requirements of customers.

DEUTZ has recognized sufficient provisions on the balance sheet to account for warranty risks. In view of the precautionary measures that have been taken, any further quality risks that could negatively impact on the financial targets continue to be categorized as 'low' for 2023.

OTHER RISKS

Cyber risk DEUTZ is a technology-driven company that is heavily focused on research and development. It regards the continuing development of the engine portfolio with a focus on sustainable drive solutions as a competitive advantage that will form the basis of its long-term success. However, there is a risk that strictly confidential information, particularly concerning new technological insights or partnerships in research and development, could find its way to competitors through illegitimate means. As well as the loss of confidential information, it is conceivable that forged documents could be used to siphon off capital without authorization. In addition, technical defects or IT system outages could have a negative impact on market position and on financial position and financial performance. This is also true of potential cyberattacks and the harm resulting from such attacks, which could lead to financial loss or reputational damage.

DEUTZ has put a series of measures in place to protect against cyber risk. As well as taking out insurance against cyber risk and providing regular security training for employees, these include security measures for computer hardware and software and the management of defined IT security guidelines. In view of the precautions that have been taken, DEUTZ continues to categorize the level of cyber risk as 'low'.

Legal and compliance risk As a Group with multinational operations, DEUTZ is subject to a multitude of regulations under tax, competition, and patent law as well as to other legal and regulatory requirements. Existing and potential legal disputes, along with possible infringements of the law, are therefore recorded and analyzed on an ongoing basis; they are assessed in terms of their legal and financial impact and an appropriate amount is recognized on the balance sheet in the form of risk provisions. The outcome of legal disputes and proceedings is inherently uncertain, however. This means that there are further risks, not accounted for through provisions on the balance sheet, that could negatively impact on the financial targets.

Groupwide standards such as the general terms and conditions of business, sample contracts for various uses, and implementation provisions in the form of organizational guidelines are refined on an ongoing basis and reduce the level of new legal risk at DEUTZ. The Legal Affairs department and external attorneys are also regularly consulted about projects and the signing of contracts that fall outside the scope of the standards developed for day-to-day business.

Based on the current status of ongoing cases and in view of the measures that have been taken to either avoid or minimize risk, DEUTZ continues to categorize the level of legal risk as 'low'.

RISK MANAGEMENT IN RELATION TO KEY TOPICS PURSUANT TO SECTION 289c (3) NOS. 3 AND 4 HGB

Dealing responsibly with risks that could negatively impact on the financial targets is not the only part of good corporate governance. Another important measure of good corporate governance is the regular identification and assessment of non-financial risks arising from the Company's own business activities, business relationships, and/or products and services, where such risks could have a negative impact on material non-financial aspects. This is also the case for risks that could affect the achievement of non-financial targets set by DEUTZ as part of its 'Taking Responsibility' sustainability strategy. To this end, the DEUTZ Sustainable Development Committee, for example, generally reports to the Board of Management every quarter on the current situation with regard to the non-financial KPIs. The objective, as part of a preventive risk management approach, is to identify risks that might jeopardize the achievement of the targets at an early stage and to modify the action plan if necessary. See the non-financial report, p. 92 onward, for more information on the DEUTZ sustainability strategy and the Sustainable Development Committee.

Whereas risks related to material non-financial aspects have up to now been identified and evaluated manually, the plan is for the process to be integrated into the Group's regular, system-based risk inventory in 2023.

Using the **net method**, no material risks were found in 2022 in relation to DEUTZ's own business activity, business relationships, products, or services or to aspects relating to the key topics pursuant to section 289c (3) nos. 3 and 4 HGB that are very likely to have a serious impact on aspects subject to reporting requirements now or in the future.

OVERALL ASSESSMENT OF THE RISK SITUATION

DEUTZ uses its risk management system to identify and evaluate material risks on an ongoing basis. Appropriate action is taken to manage these risks and, as far as possible, bring them under control. Changes in material risks are monitored regularly at Group level. Currently, the DEUTZ Group has not identified any risks that either individually or in their totality could jeopardize the continued existence of the enterprise as a going concern.

Because of the precautions that have been taken and its position in the market, DEUTZ is confident in its ability to successfully manage the existing risks and overcome the resulting challenges. Overall, the Company's risk-bearing capacity in terms of equity and liquidity is assured.

ASSESSMENT OF THE APPROPRIATENESS AND EFFECTIVENESS OF THE FINANCIAL RISK MANAGEMENT SYSTEM[1]

DEUTZ routinely analyses the appropriateness and effectiveness of its financial risk management system. The risk management system is adjusted or refined as necessary as part of a continuous process of improvement. In 2023, for example, there will be a reconfiguration of the risk management system that will see a set of integrated groupwide operational risk management processes integrated into the existing structures. The objective is to improve the base data for the quarterly reporting and to ensure that risk is managed in a uniform way at all levels of the Company.

The ongoing analysis of actual financial loss compared with the forecast risks shows that risks are identified at an early stage in the Company and that the mechanisms in place are effective. For this reason, the Company regards its financial risk management system as appropriate and effective.

ACCOUNTING-RELATED INTERNAL CONTROL SYSTEM

The risk management system forms part of, and is closely linked to, the internal control system. Whereas the risk management system focuses on the identification, analysis, assessment, communication, and management of risk, the internal control system (ICS) also aims to avoid or limit risk through process-integrated and process-independent monitoring mechanisms. The ICS is there to ensure the security and efficiency of business activity, compliance with relevant laws, principles, and internal guidelines, and the propriety and reliability of internal and external financial reporting. The internal control system of DEUTZ AG is designed in such a way that all significant business processes are looked at and it therefore has a wider reach than the accounting-related controls.

The Board of Management is responsible for setting up, monitoring, refining, and ensuring the effectiveness of the ICS. At operational level, the ICS coordinators are responsible for continually improving the DEUTZ AG's ICS and ensuring that its processes are documented. The Board of Management and Audit Committee are routinely provided with reports on the status of the ICS. However, even a properly structured ICS is unable to provide absolute security; it can only provide a relative level of security in helping to achieve targets and/or avoid material risks. With regard to the accounting-related internal control system, there can be no absolute certainty that material misstatements in financial reporting will be either avoided or identified. There can only ever be a relative degree of certainty.

The accounting process itself includes those parts of the operating processes that contain the financial reporting value flows, the process for preparing the separate financial statements and the consolidated financial statements, and all information sources and processes from which the significant disclosures in the separate financial statements and the consolidated financial statements are derived.

Following a risk-oriented approach, risk is one of the aspects that is included in the analysis and assessment of DEUTZ AG's business processes. The risks identified by the risk management system and the findings of the audit of the ICS and of the processes are incorporated into the risk inventory as part of this. The accounting process includes those parts of the operating processes that contain the financial reporting value flows, the process for preparing the separate financial statements and the consolidated financial statements, and all information sources and processes from which the significant disclosures in the separate financial statements and the consolidated financial statements are derived.

Various monitoring mechanisms and risk-specific internal controls are in place to ensure that accounting is carried out properly and to ensure that the consolidated financial statements are correctly and consistently prepared. The controls include IT-supported and manual reconciliations, monitoring controls, and general IT controls such as access rules for IT systems and change management, while the fundamental principles of separation of functions and having work checked by a second member of staff reduce the risk of fraudulent acts.

The consolidated financial statements are prepared on the basis of central specifications. The same consolidation software is used for all entities and follows a prescribed chart of accounts for the Group. Relevant requirements are documented in the Group Accounting Manual, communicated as appropriate, and, together with the groupwide schedule for the year-end closing, form the basis of the process for preparing the separate financial statements and the consolidated financial statements. Ongoing analysis is carried out to determine whether the central specifications need to be modified due to changes in the regulatory environment. The reporting entities are responsible for adhering to the specifications; the Group Accounting department supports and monitors them. The data reported to DEUTZ's Group Accounting department by the subsidiaries is analyzed and validated on an ongoing basis as part of the monthly financial reporting process. Where necessary, DEUTZ also uses external service providers, such as independent assessors of pension liabilities. The Group Accounting department ensures that these requirements are adhered to across the Group.

[1] Not audited

The results of the analysis of risks and controls are recorded in a risk-control matrix to ensure proper documentation in the ICS. Documentation in the ICS is supported by procedural instructions, process descriptions, and guidelines. An ICS procedure tailored to DEUTZ AG is used to define fundamental principles regarding updates. This provides ongoing verification that the business processes analyzed in the ICS are up to date and appropriate.

As a process-independent monitoring function, Corporate Audit regularly verifies whether the statutory regulations and the DEUTZ Group's internal guidelines for its control and risk management system are being complied with and whether the internal controls are effective. The findings of these reviews are reported directly to the Board of Management and the ICS coordinators and allow DEUTZ to eliminate any deficiencies that have been identified and ensure that the ICS is continually refined.

Besides discussing the single-entity and consolidated financial statements, the Audit Committee set up by the Supervisory Board regularly discusses the quarterly financial reporting. The Audit Committee's monitoring function covers the effectiveness of the ICS set up by the Board of Management as well as the accounting process itself.

ASSESSMENT OF THE APPROPRIATENESS AND EFFECTIVENESS OF THE INTERNAL CONTROL SYSTEM[1]

Audit reviews contribute to the efficient monitoring of the internal control system and the risk management system. Based on the results of the reviews of the ICS by Corporate Audit, the Board of Management is unaware of any circumstances that would suggest the ICS is not essentially appropriate and effective. It is, however, subject to ongoing optimization as part of a continuous process of improvement.

OPPORTUNITIES REPORT

DEUTZ operates in a fast-paced market environment. The aforementioned risks that are associated with this have the potential to negatively impact on the attainment of its business objectives. However, opportunities are also presented that could have a positive effect on the objectives of the Group for 2023 and beyond. It is to be viewed as an opportunity, for example, that particular events or developments may result in a positive deviation from the planned objectives for 2023. Identifying and harnessing these opportunities is the responsibility of the individual operating segments of the Group and the Board of Management.

OPPORTUNITY ASSESSMENT

In the DEUTZ Group, the assessment of opportunities is based on the estimated probability of occurrence in conjunction with the potential impact of the opportunity on the business objectives. As with the assessment of risks, a 'best case', 'mid case', and 'worst case' are considered. In the following opportunity report for the DEUTZ Group, the opportunities are categorized as either 'low', 'moderate', or 'high'. Opportunities that have been classified as 'low' would be expected to have a low impact of up to €10 million on financial position and financial performance. Opportunities classified as 'moderate', however, would have a significant impact, of between €10 million and €50 million, and opportunities classified as 'high' would have a major impact, of over €50 million, on financial position and financial performance.

Unless otherwise stated, the opportunities refer to the relevant expected value for 2023, weighted by probability.

Growth strategy As part of its overarching growth strategy Dual+, DEUTZ is particularly focusing on unlocking potential for growth in the classic engine business and, at the same time, ramping up the activities relating to alternative drive solutions, which are assigned to the Green segment, and expanding the high-margin service business.

The onus is on companies to reduce or limit carbon emissions around the world in the face of advancing climate change and the targets that have been set in order to achieve climate neutrality. However, DEUTZ firmly believes that internal combustion engines will continue to play, and will need to play, a dominant role in mobile machinery applications in the years ahead. To help facilitate a smooth transition to more sustainable drive systems, DEUTZ is therefore taking an open-minded approach to technology as it continues to develop its engine portfolio. This means that in addition to the expansion of the Green portfolio, DEUTZ will also be forging ahead with the use of drive solutions that represent a more environmentally-friendly alternative to the traditional internal combustion engine, for example using HVO, hydrogen, or synthetic fuels. This is enabling DEUTZ to build on its competitive position and attract new customer groups. Despite the transition to carbon-neutral drive systems, and the associated consolidation of the market, the use of internal combustion engines in mobile machinery is expected to remain dominant for certain applications in the years ahead. This provides DEUTZ with potential for growth, provided that it can play an active part in the market's consolidation and thus strengthen its market position. In the service business, by contrast, potential for growth stems firstly from new and, in particular, digital services and service products that are designed to increase customer loyalty and

[1] Not audited

satisfaction. Secondly, growth opportunities are arising from the expansion of the global DEUTZ service network, from acquisitions and alliances, and from extending the scope of service activities to include non-DEUTZ engines. See also 'Strategy and objectives', p. 22 onward, and 'Research and development', p. 26 onward.

DEUTZ categorizes the level of strategic opportunity with regard to the attainment of the financial targets as 'low' for 2023.

Market opportunities In the budget for 2023, DEUTZ has anticipated a continuation of the challenging conditions due to the macroeconomic uncertainties, which primarily relate to the coronavirus pandemic and the geopolitical impact of the war in Ukraine. If the market environment brightens during the year, additional growth opportunities will open up. See also 'Outlook for 2023', p. 65 onward.

DEUTZ categorizes the level of market opportunity with regard to the attainment of its targets as 'low' for 2023.

Operational opportunities In a mirror-image of the risk of suppliers charging higher prices, the significant fluctuation in energy prices represents an opportunity in the form of falling procurement costs.

DEUTZ categorizes the level of operational opportunity with regard to the attainment of its targets as 'moderate' for 2023 (2022: 'low').

Legal opportunities In view of the current status of ongoing cases and in view of the measures that have been taken, DEUTZ categorizes the level of legal opportunity as 'low'.

OUTLOOK FOR 2023

ECONOMIC OUTLOOK

GDP growth[1]

YoY change (%)

	2023	2024
Global	2.9	3.1
Industrialized countries	1.2	1.4
Eurozone	0.7	1.6
Germany	0.1	1.4
USA	1.4	1.0
Emerging markets	4.0	4.2
China	5.2	4.5

[1] IMF, World Economic Outlook Update, January 2023.

In its January 2023 forecast, the International Monetary Fund (IMF) raised its expectations with regard to GDP growth for 2023 by 20 basis points to 2.9 percent compared with its forecast in October 2022[1]. This adjustment was prompted by stronger-than-expected growth rates in 2022 and the fact that many economies performed quite robustly. The relatively lower growth rate compared with the previous year reflects anticipated interest-rate increases as part of the central banks' continuing efforts to curb inflation as well as the effects of the ongoing war in Ukraine.[2] See also 'Economic and industry-specific environment', p. 34.

The IMF's expectations for GDP for 2024 underwent a moderate downward adjustment of 10 basis points to 3.1 percent. However, this is essentially a technical effect, based on the assumption that growth in 2023 is forecast to be slightly stronger than originally expected. In addition, global trade is predicted to increase by 2.4 percent year on year in 2023 and by around 2.5 percent in 2024.[2]

The moderate GDP forecast is set to be accompanied by a recovery in commodity prices, which should help to lower inflation. Generally, the IMF projects that 84 percent of countries will see their inflation rates fall over the course of 2023. Globally, inflation is expected to slow from 8.8 percent in 2022 to 6.6 percent in 2023 and 4.4 percent in 2024. However, this would still see inflation remaining above the long-term average of around 3.5 percent. It can be assumed that, in keeping with historical patterns, industrialized countries will experience lower rates of inflation than emerging economies.

[1] IMF, World Economic Outlook Update, October 2022.
[2] IMF, World Economic Outlook Update, January 2023.

PROCUREMENT MARKET

Only parts of the procurement market are expected to stabilize in 2023 following the extraordinary rises in commodity prices, energy prices, and transportation costs seen in 2022. While prices for raw materials are starting to fall and sea freight capacity is likely to increase, it is anticipated that freight costs for overland transport will stay high and the supply of materials in the semiconductor sector will remain at critical levels. The elevated level of energy prices is also expected to continue. The German government adopted various relief packages at the end of 2022 in order to mitigate the resulting difficulties for households and businesses. These include the price brakes for electricity and gas that will cover the period from March 31, 2023 to April 30, 2024.[1]

The procurement market is likely to remain challenging as a result of persistent geopolitical uncertainty in connection with the war in Ukraine, the ongoing coronavirus pandemic, rising inflation, and political debate surrounding factors such as the shift toward renewable energies and a carbon-neutral economy.

[1] www.bmwk.de/Redaktion/DE/Artikel/Energie/strom-gaspreis-bremse.html.

DIESEL ENGINES MARKET

DEUTZ customer industries: forecast for 2023

YoY change in unit sales (%)

	Europe	North America	China
Construction equipment[1]	0 to +5	0 to +5	0 to +5
Material handling[1]	0 to +5	0 to +5	+5 to +10
Agricultural machinery[2]	– 5 to +5	– 5 to +5	– 5 to +5

[1] Power Systems Research, OE Link Update Bulletin Q4 2022, January 2023.
[2] VDMA, Geschäftsklima und Marktentwicklung weltweit, November 2022.

In 2023, based on currently available figures, the performance of key industries for sales of DEUTZ diesel engines for off-highway applications is likely to be inconsistent. In Europe and North America, high inflation, rising interest rates and energy costs, and the ongoing global bottlenecks in the supply chain are set to limit any rise in demand. In the rest of Asia, especially in Korea and Japan, the trend is likely to mirror that in Europe and North America. While customer industries in China are expected to grow moderately, this will probably be at a much lower rate than in the past due to China's current sluggish growth and the uncertainty surrounding the pandemic situation.

Demand for construction equipment is expected to continue to rise overall. The long-term investment and infrastructure programs approved by the European Commission in the EU and the Biden administration in the USA should ensure steady demand in Europe and North America over the coming years. In China too, the construction sector – a key driver of Chinese economic growth – is expected to contribute to sustained demand for construction equipment, provided that no further lockdowns are ordered by the Beijing government in 2023.

Demand for material handling equipment, especially forklift trucks, lifting platforms, and telehandlers, is also set to grow overall across all regions. In all probability, the increase in demand in Europe and North America will continue to be driven in particular by equipment leasing companies investing in their fleets. The capital spending in 2022 and the announcements for 2023 indicate that the level of capital investment will remain high.

The factors that will influence unit sales of agricultural machinery in 2023 are very varied, and growth rates are expected to be in the low single digits. The new emissions standard for the <19 kW segment is likely to slow down market growth in Europe, while in North America there are signs that the rate of growth will drop off after two years of strong unit sales and recent interest-rate rises. The China IV emissions standard introduced in China at the end of 2022 will make tractors more expensive, and with subsidies for new purchases also cut, any rise in demand is poised to be moderate.

We expect the Chinese market for heavy-duty trucks[1] to recover slightly in 2023 following a considerable slump in 2022. The reasons behind this included high inventory levels at customers who expanded their fleets before the introduction of the CN6 emissions standard in 2021 and multiple plant closures ordered by the Beijing government. We expect that the resulting production outages will be gradually made up for over the course of 2023.

BUSINESS OUTLOOK FOR 2023

Given the sustained upward trajectory experienced in 2022 by the industries in which DEUTZ's customers operate, it is expected that customers' greater propensity to invest will be maintained in 2023. However, it should be borne in mind that the sharp rises in raw material and energy prices in 2022 created a highly inflationary environment, meaning that a recession this year cannot be entirely ruled out. This makes it hard to predict what the effects would be on the global economy and, in turn, on the DEUTZ Group's business performance. The global procurement market also remains a source of uncertainty.

The business outlook presented here was made on the basis of the information available at the end of February 2023.

[1] China Automotive Industry Association, January 2023.

UNIT SALES, REVENUE

Based on the macroeconomic conditions outlined above and the assumption that bottlenecks in the supply chain will ease, DEUTZ expects unit sales of 175,000 to 195,000 DEUTZ engines[1] in 2023. This should result in an increase in revenue to between €1.9 billion and €2.1 billion, with the revenue attributable to the Classic segment accounting for between €1.8 billion and €2.0 billion. The Green segment, which comprises all activities connected with the development and production of new, alternative drive solutions, such as electric or hydrogen-powered drives, is expected to contribute revenue of between €60 million and €100 million.

EARNINGS

If unit sales and revenue prove to be as described above, DEUTZ expects the EBIT margin before exceptional items (adjusted EBIT margin) at Group level to be in a range of 4.0 percent to 5.0 percent. This span is the product, on the one hand, of the aforementioned revenue range and, on the other, of the rise in staff costs – particularly in Germany as a result of the collective agreement concluded at the end of 2022 – and the expectation that raw material and energy prices will increase again in 2023. See also 'Procurement market', p. 66, and 'Employees', p. 68.

Looking at the individual segments, the adjusted EBIT margin for the Classic segment is expected to be between 6.0 percent and 7.0 percent, while the adjusted EBIT margin for the Green segment is likely to be in a range of minus 40 percent to minus 30 percent. It should be noted that in the Green segment, smaller revenues will still be coinciding with the increased level of investment that is required to establish the portfolio of alternative drive systems. See also 'Strategy and objectives', p. 22 onward, and 'Research and development', p. 26 onward.

In the outlook section of the 2021 report, DEUTZ anticipated payment of the final installment of the purchase consideration for the sale of the Cologne-Deutz site in 2023, resulting in a positive exceptional item of around €60 million. Based on current information, however, this payment is no longer expected to materialize in the short term and it is currently not possible to name a firm date for when it will be made.[2]

Based on our earnings guidance, we believe that the return on capital employed (ROCE) before exceptional items in 2023 will be a high single digit percentage figure.

[1] Excluding electric boat drives from DEUTZ subsidiary Torqeedo.
[2] The amount and the timing of this payment depend on when the development plan for the site is formally approved by the City of Cologne.

RESEARCH AND DEVELOPMENT EXPENDITURE[1]

After deducting grants[2], DEUTZ expects expenditure on research and development to be in the range of €100 million to €120 million in 2023. This money is to be spent primarily on activities in the field of alternative drive systems and on the ongoing development of our portfolio of engines with capacities of less than 4 liters. See also 'Research and development', p. 26 onward.

CAPITAL EXPENDITURE[3]

After deducting grants[2], capital expenditure[4] is likely to be in a range of €70 million to €90 million in 2023. This expected year-on-year decrease is primarily attributable to the one-off effect of the investment of around €30 million in the logistics center in 2022. See also 'Production and logistics', p. 29 onward.

WORKING CAPITAL RATIO, FREE CASH FLOW, AND EQUITY RATIO

The average working capital ratio for 2023 is predicted to be between 16 percent and 18 percent. Free cash flow is likely to be an amount in the mid-double-digit millions of euros.[4] The equity ratio is expected to remain well over 40 percent.

EMPLOYEES

Staffing levels Short-term peaks in demand for labor as a result of unexpected increases in production volume will be managed by offering flexible employment conditions in the shape of fixed-term and temporary employment contracts.

Supplementary collective pay agreement In mid-December 2020, the IG Metall labor union and the employers' association agreed on a fixed-term supplementary collective pay agreement, which includes a commitment by the Company to protect jobs at the sites in Cologne, Herschbach, and Ulm until the end of 2025.

Wage settlement In December 2022, IG Metall reached a new wage settlement for the metalworking and electrical engineering industry, to which DEUTZ AG belongs. The settlement includes an increase of 5.2 percent in the monthly basic pay of employees covered by collective pay agreements and in apprentices' monthly pay from June 2023 onward. In addition, there will be a one-off inflation compensation payment of €3,000 net, of which at least half is to be paid in 2023. DEUTZ also intends to increase the remuneration of its employees not covered by collective pay agreements and its senior managers.

[1] Research and development expenditure constitutes actual spending on R&D projects. It differs from the research and development costs recognized in the income statement in that development expenditure that can be capitalized is deducted and amortization on completed development projects is added.
[2] Grants from development partners and subsidies.
[3] Capital expenditure on property, plant and equipment (including right-of-use assets in connection with leases) and intangible assets, excluding capitalization of research and development expenditure.
[4] Excl. M&A.

OUTLOOK FOR 2025

The pace of the global economic recovery remains fraught with uncertainty. This is due to the sharp rise in raw material and energy prices and the fact the challenging situation in the global procurement market is easing only slowly. Interest rates were raised across the world last year in response to the high rates of inflation, and a recession now seems possible. This is one of the reasons why DEUTZ has either revised the targets for 2023/2024, See also 'Outlook for 2023', p. 65 onward which were most recently confirmed in its 2022 annual report, or set new medium-term targets for 2025.

Originally, an increase in consolidated revenue to more than €2 billion was envisaged for 2023/2024, which was expected to result in an EBIT margin before exceptional items in a range of 7 to 8 percent. Whereas, according to the business outlook for 2023, this revenue target could be achieved as early as this year, it no longer appears possible for the profit margin target to be achieved due to the macroeconomic environment described above and to the much lower than expected EBIT contribution from the equity-accounted Chinese joint venture with SANY. DEUTZ also believes that it needs to invest significantly larger sums in alternative drives in order to be prepared for the transition to more sustainable drive systems. Indeed, it plans to invest more than €100 million in this area over the next three years.

DEUTZ has set new medium-term targets for 2025 based on the implementation of its Dual+ strategy, namely an increase in annual revenue to more than €2.5 billion, tied to which is an EBIT margin before exceptional items in the range of 6 to 7 percent.

Ongoing internationalization and the expansion of the service business, together with a technology-neutral approach to the development of the Classic engine portfolio, are expected to remain key growth drivers. DEUTZ predicts that the volume of annual revenue attributable to its service business will rise to around €600 million by 2025. The continued implementation of measures aimed at optimizing prices while raising efficiency will further underpin its profitability going forward. See also 'Strategy and objectives', p. 22 onward.

Under its sustainability strategy, DEUTZ had set itself the target of raising the proportion of consolidated revenue generated by the Green segment to between 5 and 10 percent by 2023/2024. Currently, the segment's revenue is almost exclusively derived from the business with Torqeedo subsidiary's electric boat drives. But because demand for alternative drives is taking longer than anticipated to ramp up, DEUTZ now does not expect to reach this target until 2025. See also 'Strategy and objectives', p. 22 onward.

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